# Ballfields Parcels at DoDHF Novato, CA Data Validation Reports LDC# 13575

Volatiles

# Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Ballfields Parcels at DoDHF Novato, CA

Collection Date: April 6, 2005

LDC Report Date: June 15, 2005

Matrix: Soil

Parameters: Volatiles

Validation Level: NFESC Level III

Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2502497

### Sample Identification

TO63-R2-SB04-0-0.5 TO63-R1-SB01-0-0.5MS TO63-R2-SB04-3-4 TO63-R1-SB01-0-0.5MSD

TO63-R2-SB01-0-0.5

TO63-R2-SB01-0-0.5 Dup

TO63-R2-SB01-1-2

TO63-R1-SB04-0-0.5

TO63-R1-SB04-4-5

TO63-R1-SB01-0-0.5

TO63-R1-SB03-0-0.5

TO63-R1-SB03-4-5

TO63-R4-SB04-0-0.5

TO63-R4-SB04-4-5

TO63-R5-SB04-0-0.5

TO63-R5-SB04-5-6

TO63-R5-SB02-0-0.5

TO63-R5-SB02-3-4

TO63-R5-SB01-0-0.5

TO63-R5-SB03-0-0.5

TO63-R2-SB03-0-0.5

TO63-R2-SB02-0-0.5

#### Introduction

This data review covers 22 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

The review follows the Final Sampling and Analysis Plan for Preliminary Assessment/Site Investigation of Ballfields Parcels at DoDHF Novato, California, (March 23, 2005) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

# I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

# II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

### III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) with the following exceptions:

| Date    | Compound                                         | %RSD                 | Associated Samples             | Flag                                    | A or P |
|---------|--------------------------------------------------|----------------------|--------------------------------|-----------------------------------------|--------|
| 4/11/05 | Bromomethane<br>Cyclohexane<br>Methylcyclohexane | 15.7<br>15.8<br>15.5 | All samples in SDG<br>K2502497 | J (all detects)<br>UJ (all non-detects) | A      |

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

# IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) with the following exceptions:

| Date    | Compound                | %D | Associated Samples                            | Flag                                    | A or P |
|---------|-------------------------|----|-----------------------------------------------|-----------------------------------------|--------|
| 4/13/05 | Dichlorodifluoromethane | 22 | TO63-R1-SB01-0-0.5MS<br>TO63-R1-SB01-0-0.5MSD | J (all detects)<br>UJ (all non-detects) | А      |

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

#### V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis<br>Date | Compound<br>TIC (RT in minutes) | Concentration          | Associated Samples                                                                                                                                                                                                                       |
|-----------------|------------------|---------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KWG0505901-3    | 4/11/05          | Acetone<br>Bromomethane         | 10 ug/Kg<br>0.80 ug/Kg | TO63-R2-SB04-0-0.5<br>TO63-R2-SB04-3-4<br>TO63-R2-SB01-0-0.5<br>TO63-R2-SB01-0-0.5 Dup<br>TO63-R2-SB01-1-2<br>TO63-R1-SB04-0-0.5<br>TO63-R1-SB04-0-0.5                                                                                   |
| KWG0506003-3    | 4/12/05          | Bromomethane                    | 1.1 ug/Kg              | TO63-R1-SB03-0-0.5<br>TO63-R1-SB03-4-5<br>TO63-R4-SB04-0-0.5<br>TO63-R5-SB04-0-0.5<br>TO63-R5-SB04-5-6<br>TO63-R5-SB02-0-0.5<br>TO63-R5-SB02-3-4<br>TO63-R5-SB01-0-0.5<br>TO63-R5-SB03-0-0.5<br>TO63-R2-SB03-0-0.5<br>TO63-R2-SB03-0-0.5 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample           | Compound            | Reported      | Modified Final |
|------------------|---------------------|---------------|----------------|
|                  | TIC (RT in minutes) | Concentration | Concentration  |
| TO63-R2-SB04-3-4 | Acetone             | 63 ug/Kg      | 63U ug/Kg      |

# VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

# VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### IX. Regional Quality Assurance and Quality Control

Not applicable.

#### X. Internal Standards

All internal standard areas and retention times were within QC limits.

# XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

# XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

# XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

### XIV. System Performance

Raw data were not reviewed for this SDG.

### XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

#### XVI. Field Duplicates

Samples T063-R2-SB01-0-0.5 and T063-R2-SB01-0-0.5 Dup and samples T063-R1-SB01-0-0.5 and T063-R1-SB01-0-0.5Dup (from SDG K2502497) were identified as field duplicates. No volatiles were detected in any of these samples.

#### XVII. Field Blanks

No field blanks were identified in this SDG.

# Ballfields Parcels at DoDHF Novato, CA Volatiles - Data Qualification Summary - SDG K2502497

| SDG      | Sample                                                                                                                                                                                                                                                                                                                                                                              | Compound                                         | Flag                                    | A or P | Reason                        |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------|--------|-------------------------------|
| K2502497 | TO63-R2-SB04-0-0.5 TO63-R2-SB04-0-0.5 TO63-R2-SB01-0-0.5 TO63-R2-SB01-0-0.5 TO63-R1-SB04-0-0.5 TO63-R1-SB04-0-0.5 TO63-R1-SB03-0-0.5 TO63-R1-SB03-0-0.5 TO63-R1-SB03-4-5 TO63-R4-SB04-0-0.5 TO63-R4-SB04-0-0.5 TO63-R5-SB04-5-6 TO63-R5-SB04-5-6 TO63-R5-SB04-5-6 TO63-R5-SB02-0-0.5 TO63-R5-SB01-0-0.5 TO63-R5-SB01-0-0.5 TO63-R5-SB03-0-0.5 TO63-R5-SB03-0-0.5 TO63-R5-SB03-0-0.5 | Bromomethane<br>Cyclohexane<br>Methylcyclohexane | J (all detects)<br>UJ (all non-detects) | А      | Initial calibration<br>(%RSD) |

# Ballfields Parcels at DoDHF Novato, CA Volatiles - Laboratory Blank Data Qualification Summary - SDG K2502497

| SDG      | Sample           | Compound<br>TIC (RT in minutes) | Modified Final<br>Concentration | A or P |
|----------|------------------|---------------------------------|---------------------------------|--------|
| K2502497 | TO63-R2-SB04-3-4 | Acetone                         | 63U ug/Kg                       | А      |

Analytical Results

Client:

Battelle Memorial Institute

Project:

Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

Date

### **Volatile Organic Compounds**

Dibution

Date

Sample Name:

TO63-R2-SB04-0-0.5

Lab Code:

K2502497-001

**Extraction Method:** 

EPA 5035

**Analysis Method:** 

8260B

Units: ug/Kg Basis: Dry

Level: Low

Extraction

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U     | 6.3 | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloromethane               | ND U     | 6.3 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Vinyl Chloride              | ND U     | 6.3 | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromomethane                | ND U UJ  | 6.3 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroethane                | ND U     | 6.3 | 0.98 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorofluoromethane      | ND U     | 6.3 | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorotrifluoroethane    | ND U     | 6.3 | 0.93 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Acetone                     | ND U     | 26  | 13   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethene          | ND U     | 6.3 | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl Acetate              | ND U     | 6.3 | 0.93 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Disulfide            | ND U     | 6.3 | 1.9  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Diisopropyl Ether           | ND U     | 13  | 0.43 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylene Chloride          | ND U     | 13  | 3.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether     | ND U     | 6.3 | 0.82 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,2-Dichloroethene    | ND U     | 6.3 | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethane          | ND U     | 6.3 | 0.98 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Butanone (MEK)            | ND U     | 26  | 16   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,2-Dichloroethene      | ND U     | 6.3 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroform                  | ND U     | 6.3 | 0.72 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 6.3 | 0.72 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cyclohexane                 | ND U UJ  | 6.3 | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Tetrachloride        | ND U     | 6.3 | 0.76 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 6.3 | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Benzene                     | ND U     | 6.3 | 1.0  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichloroethene (TCE)       | ND U     | 6.3 | 0.36 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloropropane         | ND U     | 6.3 | 0.91 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromodichloromethane        | ND U     | 6.3 | 0.67 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylcyclohexane           | ND U UJ  | 6.3 | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Hexanone                  | ND U     | 26  | 7.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene     | ND U     | 6.3 | 0.96 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Toluene                     | ND U     | 6.3 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,3-Dichloropropene   | ND U     | 6.3 | 0.76 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2-Trichloroethane       | ND U     | 6.3 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
|                             |          |     |      |          |           |          |            |      |

Comments:

Page

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Form 1A - Organic 944

SuperSet Reference:

RR47238

1 of 2

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB04-0-0.5

Lab Code:

K2502497-001

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 26  | 6.9  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND     | U | 6.3 | 0.39 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND     | U | 6.3 | 0.76 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 26  | 1.0  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND     | U | 6.3 | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND     | U | 6.3 | 0.72 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND     | U | 6.3 | 1.9  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND     | U | 6.3 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND     | U | 6.3 | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND     | U | 6.3 | 0.97 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND     | U | 26  | 0.86 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 6.3 | 0.93 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND     | U | 6.3 | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND     | U | 6.3 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND     | U | 6.3 | 0.82 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 26  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 26  | 0.97 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND     | U | 26  | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND     | U | 6.3 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 26  | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 104  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 111  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 110  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB04-3-4

Lab Code:

K2502497-002

**Extraction Method:** Analysis Mothad

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

Extraction

Lot

KWG0505901 KWG0505901

KWG0505901

KWG0505901

Note

| Analysis Method: 8200B   |          |      |      |                    |                   |                  |
|--------------------------|----------|------|------|--------------------|-------------------|------------------|
|                          | Decile O | MRL  | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed |
| Analyte Name             | Result Q | WIKL | MIDT | Factor             |                   |                  |
| Dichlorodifluoromethane  | ND U     | 9.7  | 1.4  | 1                  | 04/11/05          | 04/12/05         |
| Chloromethane            | ND U     | 9.7  | 2.0  | 1                  | 04/11/05          | 04/12/05         |
| Vinyl Chloride           | ND U     | 9.7  | 1.2  | 1                  | 04/11/05          | 04/12/05         |
| Bromomethane             | LN U UN  | 9.7  | 1.6  | 1                  | 04/11/05          | 04/12/05         |
| Chloroethane             | ND U     | 9.7  | 1.6  | 1                  | 04/11/05          | 04/12/05         |
| Trichlorofluoromethane   | ND U     | 9.7  | 1.5  | 1                  | 04/11/05          | 04/12/05         |
| Trichlorotrifluoroethane | ND U     | 9.7  | 1.5  | 1                  | 04/11/05          | 04/12/05         |
| Acetone                  | 63 U     | 39   | 20   | 1                  | 04/11/05          | 04/12/05         |
| 110000110                |          |      |      |                    |                   | 0 1 14 5 10 5    |

KWG0505901 /05 KWG0505901 /05 /05 KWG0505901 /05 KWG0505901 KWG0505901 04/11/05 04/12/05 ND U 9.7 1.4 1 1,1-Dichloroethene KWG0505901 1 04/11/05 04/12/05 9.7 1.5 ND U Methyl Acetate KWG0505901 04/12/05 2.9 1 04/11/05 ND U 9.7 Carbon Disulfide KWG0505901 0.66 04/12/05 1 04/11/05 ND U 20 Diisopropyl Ether 04/12/05 KWG0505901 4.9 1 04/11/05 ND U 20 Methylene Chloride 04/12/05 KWG0505901 04/11/05 ND U 9.7 1.3 1 Methyl tert-Butyl Ether KWG0505901 04/11/05 04/12/05 ND U 9.7 1.5 1 trans-1.2-Dichloroethene KWG0505901 1.6 1 04/11/05 04/12/05 9.7 1,1-Dichloroethane ND U KWG0505901 04/12/05 04/11/05 ND U 39 24 1 2-Butanone (MEK) KWG0505901 04/11/05 04/12/05 9.7 1.6 1 ND U cis-1,2-Dichloroethene KWG0505901 04/11/05 04/12/05 ND U 9.7 1.1 1 Chloroform KWG0505901 04/11/05 04/12/05 1.1 1 ND U 9.7 1,1,1-Trichloroethane (TCA) KWG0505901 04/12/05 ND U 1.3 1 04/11/05 WI 9.7 Cyclohexane KWG0505901 04/12/05 9.7 12 1 04/11/05 ND U Carbon Tetrachloride KWG0505901 04/12/05 1.3 1 04/11/05 ND U 9.7 1.2-Dichloroethane (EDC) KWG0505901 04/12/05 04/11/05 ND U 9.7 1.6 1 Benzene 04/12/05 KWG0505901 04/11/05 0.54 1 ND U 9.7 Trichloroethene (TCE) KWG0505901 04/11/05 04/12/05 1.4 1 9.7 1,2-Dichloropropane ND U KWG0505901 04/11/05 04/12/05 1 Bromodichloromethane ND U 9.7 1.1 04/12/05 KWG0505901 1 04/11/05 9.7 1.4 ND U WJ Methylcyclohexane KWG0505901 04/11/05 04/12/05 39 12 1 ND U 2-Hexanone 04/12/05 KWG0505901 04/11/05 1.5 1 9.7 cis-1,3-Dichloropropene ND U KWG0505901 9.7 1.7 1 04/11/05 04/12/05 ND U Toluene KWG0505901 1.2 1 04/11/05 04/12/05 9.7 trans-1,3-Dichloropropene ND U

Comments:

1.4

1000

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1,1,2-Trichloroethane

Form 1A - Organic

9.7

ND U

Merged

SuperSet Reference:

04/12/05

04/11/05

1 of 2 Page

KWG0505901

946

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Sample Matrix: Soil

**Service Request:** K2502497 **Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

 Sample Name:
 TO63-R2-SB04-3-4

 Lab Code:
 K2502497-002

**Extraction Method:** EPA 5035 **Analysis Method:** 8260B

Units: ug/Kg
Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 39  | 11   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 9.7 | 0.60 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 9.7 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 39  | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 9.7 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 9.7 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 9.7 | 2.9  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 9.7 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND U     | 9.7 | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 9.7 | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 39  | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 9.7 | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 9.7 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 9.7 | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 9.7 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 39  | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 39  | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 39  | 1.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 9.7 | 1.9  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 39  | 1.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 105  | 66-122            | 04/12/05         | Acceptable |

Comments:

Page 2 of 2 RR47238

SuperSet Reference:

Printed: 04/20/2005 12:26:30

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

**Dilution** 

Date

Sample Name:

TO63-R2-SB01-0-0.5

Lab Code:

K2502497-003

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

Extraction

| Analysis Method: | 8260B |
|------------------|-------|
| Analyte Name     |       |

| Analyte Name                | Result | Q    | MRL | MDL  | Factor | Extracted | Analyzed | Lot        | Note |
|-----------------------------|--------|------|-----|------|--------|-----------|----------|------------|------|
| Dichlorodifluoromethane     | ND     | U    | 6.5 | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloromethane               | ND     | U    | 6.5 | 1.6  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Vinyl Chloride              | ND     | U    | 6.5 | 0.96 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromomethane                | ND     | U UJ | 6.5 | 1.3  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroethane                | ND     | U    | 6.5 | 1.3  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorofluoromethane      | ND     | U    | 6.5 | 1.2  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorotrifluoroethane    | ND     | U    | 6.5 | 1.2  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Acetone                     | ND     | U    | 26  | 16   | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethene          | ND     | U    | 6.5 | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl Acetate              | ND     | U    | 6.5 | 1.2  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Disulfide            | ND     | U    | 6.5 | 2.4  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Diisopropyl Ether           | ND     | U    | 13  | 0.53 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylene Chloride          | ND     | U    | 13  | 3.9  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether     | ND     | U    | 6.5 | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,2-Dichloroethene    | ND     | U    | 6.5 | 1.2  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethane          | ND     | U    | 6.5 | 1.3  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Butanone (MEK)            | ND     | U    | 26  | 19   | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,2-Dichloroethene      | ND     | U    | 6.5 | 1.3  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroform                  | ND     | U    | 6.5 | 0.89 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,1-Trichloroethane (TCA) | ND     | U    | 6.5 | 0.89 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cyclohexane                 | ND     | U UJ | 6.5 | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Tetrachloride        | ND     | U    | 6.5 | 0.93 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloroethane (EDC)    | ND     | U    | 6.5 | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Benzene                     | ND     | U    | 6.5 | 1.3  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichloroethene (TCE)       | ND     | U    | 6.5 | 0.44 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloropropane         | ND     | U    | 6.5 | 1.2  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromodichloromethane        | ND     | U    | 6.5 | 0.82 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylcyclohexane           | ND     |      |     | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Hexanone                  | ND     | U    | 26  | 9.5  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene     | ND     | U    | 6.5 | 1.2  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Toluene                     | ND     |      | 6.5 | 1.3  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,3-Dichloropropene   | ND     |      | 6.5 | 0.93 | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2-Trichloroethane       | ND     | U    | 6.5 | 1.1  | 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

Page 1 of 2

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB01-0-0.5

Lab Code:

K2502497-003

**Extraction Method: Analysis Method:** 

EPA 5035

8260B

| Units: | ug/Kg |
|--------|-------|
| Basis: | Dry   |
| Level: | Low   |

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 26  | 8.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 6.5 | 0.48 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 6.5 | 0.93 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 26  | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 6.5 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 6.5 | 0.89 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 6.5 | 2.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 6.5 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND U     | 6.5 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 6.5 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 26  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 6.5 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 6.5 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 6.5 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 6.5 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 26  | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 26  | 1.2  | - 1      | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 26  | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 6.5 | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 26  | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 105  | 66-122            | 04/12/05         | Acceptable |

Comments:

SuperSet Reference:

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

**Dilution** 

Date

Sample Name:

TO63-R2-SB01-0-0.5 DUP

Lab Code:

K2502497-004

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

Extraction

| Extraction Method: | EPA 503 |
|--------------------|---------|
| Analysis Method:   | 8260B   |

|                             |          |     |      | DHALLON | A) LLCC   | 2000     | ACTIVITY SECURITY |      |
|-----------------------------|----------|-----|------|---------|-----------|----------|-------------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor  | Extracted | Analyzed | Lot               | Note |
| Dichlorodifluoromethane     | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Chloromethane               | ND U     | 6.5 | 1.5  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Vinyl Chloride              | ND U     | 6.5 | 0.90 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Bromomethane                | ND U UJ  | 6.5 | 1.2  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Chloroethane                | ND U     | 6.5 | 1.2  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Trichlorofluoromethane      | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Trichlorotrifluoroethane    | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Acetone                     | ND U     | 26  | 15   | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 1,1-Dichloroethene          | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Methyl Acetate              | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Carbon Disulfide            | ND U     | 6.5 | 2.2  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Diisopropyl Ether           | ND U     | 13  | 0.49 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Methylene Chloride          | ND U     | 13  | 3.7  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Methyl tert-Butyl Ether     | ND U     | 6.5 | 0.94 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| trans-1,2-Dichloroethene    | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 1,1-Dichloroethane          | ND U     | 6.5 | 1.2  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 2-Butanone (MEK)            | ND U     | 26  | 18   | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| cis-1,2-Dichloroethene      | ND U     | 6.5 | 1.2  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Chloroform                  | ND U     | 6.5 | 0.83 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 6.5 | 0.83 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Cyclohexane                 | IN U DN  | 6.5 | 0.97 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Carbon Tetrachloride        | ND U     | 6.5 | 0.87 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 6.5 | 0.97 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Benzene                     | ND U     | 6.5 | 1.2  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Trichloroethene (TCE)       | ND U     | 6.5 | 0.41 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 1,2-Dichloropropane         | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Bromodichloromethane        | ND U     | 6.5 | 0.77 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Methylcyclohexane           | ND U UJ  | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 2-Hexanone                  | ND U     | 26  | 8.8  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| cis-1,3-Dichloropropene     | ND U     | 6.5 | 1.1  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| Toluene                     | ND U     | 6.5 | 1.3  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| trans-1,3-Dichloropropene   | ND U     | 6.5 | 0.87 | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |
| 1,1,2-Trichloroethane       | ND U     | 6.5 | 1.0  | 1       | 04/11/05  | 04/12/05 | KWG0505901        |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

Page 1 of 2

950

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005

**Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB01-0-0.5 DUP

Lab Code:

K2502497-004

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

**Analysis Method:** 

8260B

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| 4-Methyl-2-pentanone (MIBK) | ND U     | 26  | 8.0  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Tetrachloroethene (PCE)     | ND U     | 6.5 | 0.45 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Dibromochloromethane        | ND U     | 6.5 | 0.87 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 26  | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chlorobenzene               | ND U     | 6.5 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Ethylbenzene                | ND U     | 6.5 | 0.83 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| m,p-Xylenes                 | ND U     | 6.5 | 2.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| o-Xylene                    | ND U     | 6.5 | 1.0  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Styrene                     | ND U     | 6.5 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromoform                   | ND U     | 6.5 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Isopropylbenzene            | ND U     | 26  | 0.98 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 6.5 | 1.1  | . 1                | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,3-Dichlorobenzene         | ND U     | 6.5 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,4-Dichlorobenzene         | ND U     | 6.5 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichlorobenzene         | ND U     | 6.5 | 0.94 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 26  | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2,4-Trichlorobenzene      | ND U     | 26  | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Naphthalene                 | ND U     | 26  | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromochloromethane          | ND U     | 6.5 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2,3-Trichlorobenzene      | ND U     | 26  | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 105  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 103  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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Form 1A - Organic

SuperSet Reference:

RR47238

2 of 2 Page

951

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005

**Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB01-1-2

Lab Code:

K2502497-005

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction          |                                         |
|-----------------------------|----------|-----|------|----------|-----------|----------|---------------------|-----------------------------------------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot                 | Note                                    |
| Dichlorodifluoromethane     | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Chloromethane               | ND U     | 7.9 | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Vinyl Chloride              | ND U     | 7.9 | 0.98 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Bromomethane                | LN U DN  | 7.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG050 <u>5</u> 901 |                                         |
| Chloroethane                | ND U     | 7.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Trichlorofluoromethane      | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Trichlorotrifluoroethane    | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Acetone                     | ND U     | 32  | 16   | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 1,1-Dichloroethene          | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Methyl Acetate              | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Carbon Disulfide            | ND U     | 7.9 | 2.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Diisopropyl Ether           | ND U     | 16  | 0.54 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Methylene Chloride          | ND U     | 16  | 4.0  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Methyl tert-Butyl Ether     | ND U     | 7.9 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| trans-1,2-Dichloroethene    | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 1,1-Dichloroethane          | ND U     | 7.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901          | J                                       |
| 2-Butanone (MEK)            | ND U     | 32  | 19   | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| cis-1,2-Dichloroethene      | ND U     | 7.9 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Chloroform                  | ND U     | 7.9 | 0.91 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 1,1,1-Trichloroethane (TCA) | ND U     | 7.9 | 0.91 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Cyclohexane                 | ND U UJ  | 7.9 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Carbon Tetrachloride        | ND U     | 7.9 | 0.95 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 1,2-Dichloroethane (EDC)    | ND U     | 7.9 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Benzene                     | ND U     | 7.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Trichloroethene (TCE)       | ND U     | 7.9 | 0.45 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 1,2-Dichloropropane         | ND U     | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Bromodichloromethane        | ND U     | 7.9 | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Methylcyclohexane           | TH U DN  | 7.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 2-Hexanone                  | ND U     | 32  | 9.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| cis-1,3-Dichloropropene     | ND U     | 7.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| Toluene                     | ND U     | 7.9 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901          | *************************************** |
| trans-1,3-Dichloropropene   | ND U     | 7.9 | 0.95 | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
| 1,1,2-Trichloroethane       | ND U     | 7.9 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901          |                                         |
|                             |          |     |      |          |           |          | .,,                 |                                         |

Comments:

Analytical Results

Client:

Battelle Memorial Institute

Project:

Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005

Date Received: 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB01-1-2

Lab Code:

K2502497-005

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             | D 1/ 0   | MDI | MDI  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note  |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|-------|
| Analyte Name                | Result Q | MRL | MDL  | Factor             |                   |                  | KWG0505901        | 11000 |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 32  | 8.7  | 1                  | 04/11/05          | 04/12/05         |                   |       |
| Tetrachloroethene (PCE)     | ND U     | 7.9 | 0.49 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Dibromochloromethane        | ND U     | 7.9 | 0.95 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,2-Dibromoethane (EDB)     | ND U     | 32  | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Chlorobenzene               | ND U     | 7.9 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Ethylbenzene                | ND U     | 7.9 | 0.91 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| m,p-Xylenes                 | ND U     | 7.9 | 2.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| o-Xylene                    | ND U     | 7.9 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Styrene                     | ND U     | 7.9 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Bromoform                   | ND U     | 7.9 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Isopropylbenzene            | ND U     | 32  | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,1,2,2-Tetrachloroethane   | ND U     | 7.9 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,3-Dichlorobenzene         | ND U     | 7.9 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,4-Dichlorobenzene         | ND U     | 7.9 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,2-Dichlorobenzene         | ND U     | 7.9 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,2-Dibromo-3-chloropropane | ND U     | 32  | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,2,4-Trichlorobenzene      | ND U     | 32  | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Naphthalene                 | ND U     | 32  | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| Bromochloromethane          | ND U     | 7.9 | 1.6  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |
| 1,2,3-Trichlorobenzene      | ND U     | 32  | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |       |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 106  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 101  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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Form 1A - Organic

SuperSet Reference:

2 of 2 Page

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RR47238

Analytical Results

Battelle Memorial Institute Client: Novato Ballfields/G486063 Project:

Sample Matrix: Soil Service Request: K2502497 Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Units: ug/Kg TO63-R1-SB04-0-0.5 Sample Name: Basis: Dry K2502497-006 Lab Code: Level: Low EPA 5035 **Extraction Method:** 

8260B Analysis Method:

| Auglinda Marsa                      | Result   | 0   | MRL        | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-------------------------------------|----------|-----|------------|------|--------------------|-------------------|------------------|-------------------|------|
| Analyte Name                        | ND       |     | 5.5        | 0.80 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Dichlorodifluoromethane             | ND<br>ND |     | 5.5<br>5.5 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloromethane<br>Vinyl Chloride     | ND<br>ND |     | 5.5        | 0.71 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
|                                     | ND       |     | 5.5        | 0.91 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromomethane                        | ND<br>ND | _   | 5.5<br>5.5 | 0.89 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroethane Trichlorofluoromethane | ND       |     | 5.5        | 0.83 | î                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorotrifluoroethane            |          | U   | 5.5        | 0.84 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Acetone                             | ND       |     | 22         | 12   | i                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethene                  | ND       |     | 5.5        | 0.81 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
|                                     | ND       |     | 5.5        | 0.84 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl Acetate<br>Carbon Disulfide  | ND       |     | 5.5        | 1.7  | l                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Diisopropyl Ether                   | ND       |     | 11         | 0.39 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylene Chloride                  | 3.5      |     | 11         | 2.9  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl tert-Butyl Ether             | ND       |     | 5.5        | 0.74 | ī                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,2-Dichloroethene            | ND       |     | 5.5        | 0.83 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethane                  | ND       |     | 5.5        | 0.89 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Butanone (MEK)                    |          | Ü   | 22         | 14   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,2-Dichloroethene              | ND       |     | 5.5        | 0.94 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroform                          | ND       |     | 5.5        | 0.65 | l                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,1-Trichloroethane (TCA)         | ND       |     | 5.5        | 0.65 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Cyclohexane                         | ND       | UUJ | 5.5        | 0.76 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Tetrachloride                | ND       | U   | 5.5        | 0.68 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloroethane (EDC)            | ND       |     | 5.5        | 0.76 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Benzene                             | ND       | U   | 5.5        | 0.90 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichloroethene (TCE)               | ND       | U   | 5.5        | 0.32 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloropropane                 | ND       |     | 5.5        | 0.82 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromodichloromethane                | ND       | U   | 5.5        | 0.61 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylcyclohexane                   | ND       | UUS | 5.5        | 0.81 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Hexanone                          | ND       |     | 22         | 7.0  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,3-Dichloropropene             | ND       | U   | 5.5        | 0.87 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Toluene                             | ND       | U   | 5.5        | 0.96 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,3-Dichloropropene           | ND       | U   | 5.5        | 0.68 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,2-Trichloroethane               | ND       | U   | 5.5        | 0.79 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |

Comments:

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Form 1A - Organic 954

SuperSet Reference: RR47238 Page 1 of 2

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R1-SB04-0-0.5

Lab Code:

K2502497-006

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 22  | 6.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND     | U | 5.5 | 0.36 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND     | U | 5.5 | 0.68 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 22  | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND     | U | 5.5 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND     | U | 5.5 | 0.65 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND     | U | 5.5 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND     | U | 5.5 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND     | U | 5.5 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND     | U | 5.5 | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND     | U | 22  | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 5.5 | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND     | U | 5.5 | 0.81 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND     | U | 5.5 | 0.93 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND     | U | 5.5 | 0.74 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 22  | 0.97 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 22  | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND     | U | 22  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND     | U | 5.5 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 22  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 105  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 110  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 110  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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Form 1A - Organic

Page 2 of 2 RR47238

SuperSet Reference:

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Analytical Results

Client: Battelle Memorial Institute Project: Novato Ballfields/G486063

Sample Matrix: Soil Service Request: K2502497 **Date Collected:** 04/06/2005 Date Received: 04/07/2005

# **Volatile Organic Compounds**

Sample Name: TO63-R1-SB04-4-5 Lab Code: K2502497-007

**Extraction Method:** EPA 5035 **Analysis Method:** 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |                                         | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|-----------------------------------------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL                                     | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloromethane               | ND U     | 9.4 | 1.9                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Vinyl Chloride              | ND U     | 9.4 | 1.2                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromomethane                | EN U DN  | 9.4 | 1.5                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroethane                | ND U     | 9.4 | 1.5                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorofluoromethane      | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorotrifluoroethane    | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Acetone                     | ND U     | 38  | 19                                      | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethene          | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl Acetate              | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Disulfide            | ND U     | 9.4 | 2.8                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Diisopropyl Ether           | ND U     | 19  | 0.64                                    | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylene Chloride          | ND U     | 19  | 4.7                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether     | ND U     | 9.4 | 1.3                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,2-Dichloroethene    | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethane          | ND U     | 9.4 | 1.5                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Butanone (MEK)            | ND U     | 38  | 23                                      | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,2-Dichloroethene      | ND U     | 9.4 | 1.6                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroform                  | ND U     | 9.4 | 1.1                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 9.4 | 1.1                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cyclohexane                 | ND U UJ  | 9.4 | 1.3                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Tetrachloride        | ND U     | 9.4 | 1.2                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 | ~~.  |
| 1,2-Dichloroethane (EDC)    | ND U     | 9.4 | 1.3                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Benzene                     | ND U     | 9.4 | 1.5                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichloroethene (TCE)       | ND U     | 9.4 | 0.53                                    | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloropropane         | ND U     | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromodichloromethane        | ND U     | 9.4 | 0.99                                    | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylcyclohexane           | ND U UJ  | 9.4 | 1.4                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Hexanone                  | ND U     | 38  | 12                                      | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene     | ND U     | 9.4 | 1.5                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Toluene                     | ND U     | 9.4 | 1.6                                     | 1        | 04/11/05  | 04/12/05 | KWG0505901 | -    |
| trans-1,3-Dichloropropene   | ND U     | 9.4 | 1.2                                     | 1        | 04/11/05  |          | KWG0505901 |      |
| 1,1,2-Trichloroethane       | ND U     | 9.4 | 1.3                                     | 71       | 04/11/05  |          | KWG0505901 |      |
|                             |          |     | *************************************** |          | ~~~~      |          |            |      |

Comments:

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Form 1A - Organic

Page 1 of

956

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005

**Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R1-SB04-4-5 K2502497-007

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry Level: Low

8260B **Analysis Method:** 

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 38  | 11   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND     | U | 9.4 | 0.58 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND     | U | 9.4 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 38  | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND     | U | 9.4 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND     | U | 9.4 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND     | U | 9.4 | 2.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND     | U | 9.4 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND     | U | 9.4 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND     | U | 9.4 | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND     | U | 38  | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 9.4 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND     | U | 9.4 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND     | U | 9.4 | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND     | U | 9.4 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 38  | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 38  | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND     | U | 38  | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND     | U | 9.4 | 1.9  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 38  | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 110  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 110  | 66-122            | 04/12/05         | Acceptable |

Comments:

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Sample Matrix: Soil

Service Request: K2502497

Date Collected: 04/06/2005

**Date Received:** 04/07/2005

### Volatile Organic Compounds

 Sample Name:
 TO63-R1-SB01-0-0.5

 Lab Code:
 K2502497-008

**Extraction Method:** EPA 5035 **Analysis Method:** 8260B

Units: ug/Kg
Basis: Dry
Level: Low

**Extraction** Dilution Date Date Analyzed MRL MDL **Factor** Extracted Lot Note Result Q **Analyte Name** KWG0505901 04/12/05 04/11/05 4.5 0.79 1 Dichlorodifluoromethane ND U 04/11/05 KWG0505901 04/12/05 1 ND U 4.5 1.2 Chloromethane KWG0505901 04/11/05 04/12/05 0.70 1 ND U 4.5 Vinyl Chloride 0.90 1 04/11/05 04/12/05 KWG0505901 LN U DN 4.5 Bromomethane 04/11/05 04/12/05 KWG0505901 1 0.88 ND U 4.5 Chloroethane 04/12/05 KWG0505901 04/11/05 0.82 1 ND U 4.5 Trichlorofluoromethane KWG0505901 04/12/05 ND U 4.5 0.83 1 04/11/05 Trichlorotrifluoroethane KWG0505901 12 1 04/11/05 04/12/05 ND U 18 Acetone KWG0505901 0.80 1 04/11/05 04/12/05 ND U 4.5 1,1-Dichloroethene KWG0505901 04/12/05 1 ND U 4.5 0.83 04/11/05 Methyl Acetate KWG0505901 04/12/05 4.5 1.7 1 04/11/05 ND U Carbon Disulfide KWG0505901 04/12/05 0.39 1 04/11/05 ND U 9.0 Diisopropyl Ether KWG0505901 1 04/11/05 04/12/05 ND U 9.0 2.8 Methylene Chloride KWG0505901 04/12/05 0.73 04/11/05 ND U 4.5 1 Methyl tert-Butyl Ether 04/12/05 KWG0505901 04/11/05 0.82 1 ND U 4.5 trans-1,2-Dichloroethene 04/12/05 KWG0505901 04/11/05 0.88 1 ND U 4.5 1,1-Dichloroethane KWG0505901 14 1 04/11/05 04/12/05 ND U 18 2-Butanone (MEK) KWG0505901 0.93 1 04/11/05 04/12/05 ND U 4.5 cis-1,2-Dichloroethene KWG0505901 1 04/11/05 04/12/05 4.5 0.64 ND U Chloroform KWG0505901 04/12/05 0.64 1 04/11/05 ND U 4.5 1,1,1-Trichloroethane (TCA) 04/11/05 04/12/05 KWG0505901 ND U IJ 0.75 1 4.5 Cyclohexane 1 04/12/05 KWG0505901 4.5 0.68 04/11/05 ND U Carbon Tetrachloride 04/12/05 KWG0505901 0.75 1 04/11/05 ND U 4.5 1.2-Dichloroethane (EDC) KWG0505901 0.89 1 04/11/05 04/12/05 ND U 4.5 Benzene KWG0505901 04/12/05 1 04/11/05 ND U 4.5 0.32 Trichloroethene (TCE) KWG0505901 04/12/05 ND U 4.5 0.81 1 04/11/05 1,2-Dichloropropane KWG0505901 ND U 4.5 0.60 1 04/11/05 04/12/05 Bromodichloromethane KWG0505901 04/11/05 04/12/05 0.80 1 4.5 LN U DN Methylcyclohexane KWG0505901 04/12/05 04/11/05 6.9 1 ND U 18 2-Hexanone KWG0505901 04/12/05 1 04/11/05 cis-1,3-Dichloropropene ND U 4.5 0.8604/11/05 04/12/05 KWG0505901 4.5 0.94 1 ND U Toluene 04/11/05 04/12/05 KWG0505901 0.68 1 ND U 4.5 trans-1,3-Dichloropropene 04/12/05 KWG0505901 04/11/05 0.78 7 ND U 4.5 1.1.2-Trichloroethane

Comments:

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Form 1A - Organic

SuperSet Reference: RR47238

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

Volatile Organic Compounds

Sample Name:

TO63-R1-SB01-0-0.5

Lab Code:

K2502497-008

**Extraction Method: Analysis Method:** 

EPA 5035 8260B Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 18  | 6.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.5 | 0.35 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 4.5 | 0.68 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 18  | 0.89 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 4.5 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 4.5 | 0.64 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 4.5 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 4.5 | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND U     | 4.5 | 0.82 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 4.5 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 18  | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.5 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.5 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 4.5 | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.5 | 0.73 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 18  | 0.96 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 18  | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 18  | 1.0  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 4.5 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 18  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 110  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 108  | 66-122            | 04/12/05         | Acceptable |

Comments:

Analytical Results

Client:

**Battelle Memorial Institute** Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005 Date Received: 04/07/2005

Units: ug/Kg

Basis: Dry

Level: Low

### **Volatile Organic Compounds**

Sample Name:

TO63-R1-SB03-0-0.5

Lab Code:

K2502497-009

**Extraction Method:** 

EPA 5035

Analysis Method:

8260B

Date Extraction Date Dilution Note Analyzed Lot **Factor** Extracted MRL MDL Result Q Analyte Name KWG0506003 0.86 04/12/05 04/12/05 ND U 5.4 1 Dichlorodifluoromethane KWG0506003 1 04/12/05 04/12/05 5.4 1.3 ND U Chloromethane 04/12/05 KWG0506003 04/12/05 5.4 0.76 1 ND U Vinyl Chloride KWG0506003 04/12/05 04/12/05 LN U DN 54 0.99 1 Bromomethane KWG0506003 04/12/05 04/12/05 5.4 0.96 1 ND U Chloroethane KWG0506003 04/12/05 04/12/05 0.90 1 ND U 5.4 Trichlorofluoromethane 04/12/05 KWG0506003 5.4 0.91 1 04/12/05 ND U Trichlorotrifluoroethane KWG0506003 04/12/05 04/12/05 13 1 ND U 22 Acetone KWG0506003 04/12/05 04/12/05 0.88 1 5.4 ND U 1,1-Dichloroethene 04/12/05 04/12/05 KWG0506003 0.91 ND U 5.4 1 Methyl Acetate 04/12/05 KWG0506003 5.4 1.9 1 04/12/05 ND U Carbon Disulfide KWG0506003 04/12/05 0.42 1 04/12/05 11 Diisopropyl Ether ND U KWG0506003 04/12/05 11 3.1 1 04/12/05 ND U Methylene Chloride KWG0506003 04/12/05 04/12/05 0.80 1 ND U 5.4 Methyl tert-Butyl Ether KWG0506003 04/12/05 04/12/05 5.4 0.90 1 ND U trans-1,2-Dichloroethene KWG0506003 1 04/12/05 04/12/05 5.4 0.96 ND U 1.1-Dichloroethane KWG0506003 04/12/05 15 1 04/12/05 ND U 22 2-Butanone (MEK) KWG0506003 1 04/12/05 04/12/05 5.4 1.1 ND U cis-1,2-Dichloroethene KWG0506003 04/12/05 04/12/05 5.4 0.70 1 ND U Chloroform KWG0506003 04/12/05 04/12/05 1,1,1-Trichloroethane (TCA) ND U 5.4 0.70 1 04/12/05 KWG0506003 0.83 1 04/12/05 ND U W 5.4 Cyclohexane KWG0506003 04/12/05 04/12/05 0.74 1 5.4 ND U Carbon Tetrachloride 04/12/05 KWG0506003 04/12/05 ND U 5.4 0.83 1 1.2-Dichloroethane (EDC) KWG0506003 0.97 04/12/05 04/12/05 ND U 5.4 1 Benzene 04/12/05 04/12/05 KWG0506003 5.4 0.35 1 ND U Trichloroethene (TCE) 04/12/05 04/12/05 KWG0506003 0.89 ND U 5.4 1 1,2-Dichloropropane 04/12/05 KWG0506003 04/12/05 ND U 0.65 1 5.4 Bromodichloromethane KWG0506003 0.88 1 04/12/05 04/12/05 ND U IS 5.4 Methylcyclohexane KWG0506003 1 04/12/05 04/12/05 7.5 ND U 22 2-Hexanone KWG0506003 04/12/05 04/12/05 5.4 0.94 1 ND U cis-1.3-Dichloropropene KWG0506003 04/12/05 04/12/05 ND U 54 1.1 1 Toluene KWG0506003 04/12/05 5.4 0.74 1 04/12/05 ND U trans-1,3-Dichloropropene KWG0506003 04/12/05 04/12/05

Comments:

0.85

5.4

posses

1,1,2-Trichloroethane

ND U

Analytical Results

Client:

Battelle Memorial Institute

Project:

Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R1-SB03-0-0.5

Lab Code:

K2502497-009

**Extraction Method: Analysis Method:** 

EPA 5035

8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 22  | 6.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND     |   | 5.4 | 0.38 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND     |   | 5.4 | 0.74 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 22  | 0.97 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND     | U | 5.4 | 0.86 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND     | U | 5.4 | 0.70 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND     | U | 5.4 | 1.9  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND     | U | 5.4 | 0.85 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND     | U | 5.4 | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND     | U | 5.4 | 0.95 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND     | U | 22  | 0.84 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 5.4 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzene         | ND     | U | 5.4 | 0.88 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,4-Dichlorobenzene         | ND     | U | 5.4 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND     | U | 5.4 | 0.80 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 22  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 22  | 0.95 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND     | U | 22  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromochloromethane          | ND     | U | 5.4 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 22  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 111  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 111  | 66-122            | 04/12/05         | Acceptable |

Comments:

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Form 1A - Organic

Page 2 of 2

SuperSet Reference:

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date

Date Collected: 04/06/2005

Date Received: 04/07/2005

### **Volatile Organic Compounds**

Dilution

Date

Sample Name:

TO63-R1-SB03-4-5

Lab Code:

K2502497-010

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

Extraction

|                             |          |     |      | Dilution | Date      | Date     | Extraction |             |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|-------------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note        |
| Dichlorodifluoromethane     | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Chloromethane               | ND U     | 8.0 | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Vinyl Chloride              | ND U     | 8.0 | 0.99 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Bromomethane                | ND U UJ  | 8.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Chloroethane                | ND U     | 8.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Trichlorofluoromethane      | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Trichlorotrifluoroethane    | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Acetone                     | ND U     | 32  | 16   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 1,1-Dichloroethene          | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Methyl Acetate              | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Carbon Disulfide            | ND U     | 8.0 | 2.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Diisopropyl Ether           | ND U     | 16  | 0.55 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Methylene Chloride          | ND U     | 16  | 4.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Methyl tert-Butyl Ether     | ND U     | 8.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| trans-1,2-Dichloroethene    | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 1,1-Dichloroethane          | ND U     | 8.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 2-Butanone (MEK)            | ND U     | 32  | 20   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| cis-1,2-Dichloroethene      | ND U     | 8.0 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Chloroform                  | ND U     | 8.0 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 1,1,1-Trichloroethane (TCA) | ND U     | 8.0 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Cyclohexane                 | ND U UJ  | 8.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Carbon Tetrachloride        | ND U     | 8.0 | 0.96 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 1,2-Dichloroethane (EDC)    | ND U     | 8.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Benzene                     | ND U     | 8.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Trichloroethene (TCE)       | ND U     | 8.0 | 0.45 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 1,2-Dichloropropane         | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Bromodichloromethane        | ND U     | 8.0 | 0.85 | 1        | 04/12/05  | 04/12/05 | KWG0506003 | *********** |
| Methylcyclohexane           | NDUUS    | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 2-Hexanone                  | ND U     | 32  | 9.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| cis-1,3-Dichloropropene     | ND U     | 8.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| Toluene                     | ND U     | 8.0 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
| trans-1,3-Dichloropropene   | ND U     | 8.0 | 0.96 | 1000     | 04/12/05  | 04/12/05 | KWG0506003 |             |
| 1,1,2-Trichloroethane       | ND U     | 8.0 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |             |
|                             |          |     |      |          |           |          |            |             |

Comments:

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Form 1A - Organic

SuperSet Reference:

RR47238

1 of 2 Page

Analytical Results

Client: Project:

**Battelle Memorial Institute** Novato Ballfields/G486063

Sample Matrix:

Soil

1

1

1

1

1

04/12/05

04/12/05

04/12/05

04/12/05

04/12/05

04/12/05

04/12/05

04/12/05

04/12/05

04/12/05

Service Request: K2502497 Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R1-SB03-4-5 K2502497-010

**Extraction Method: Analysis Method:** 

1,2-Dibromo-3-chloropropane

1,2,4-Trichlorobenzene

Bromochloromethane

1,2,3-Trichlorobenzene

Naphthalene

EPA 5035 8260B

Units: ug/Kg Basis: Dry Level: Low

KWG0506003

KWG0506003

KWG0506003

KWG0506003

KWG0506003

Dilution Date **Extraction** Date **MDL Factor Extracted Analyzed** Lot Note **MRL** Result Q Analyte Name KWG0506003 4-Methyl-2-pentanone (MIBK) ND U 32 8.8 1 04/12/05 04/12/05 KWG0506003 ND U 8.0 0.50 1 04/12/05 04/12/05 Tetrachloroethene (PCE) KWG0506003 04/12/05 Dibromochloromethane ND U 8.0 0.96 1 04/12/05 KWG0506003 1 04/12/05 ND U 32 1.3 04/12/05 1,2-Dibromoethane (EDB) KWG0506003 04/12/05 8.0 1.2 1 04/12/05 ND U Chlorobenzene KWG0506003 0.91 1 04/12/05 04/12/05 8.0 Ethylbenzene ND U 1 04/12/05 KWG0506003 ND U 8.0 2.4 04/12/05 m,p-Xylenes KWG0506003 8.0 1.2 1 04/12/05 04/12/05 ND U o-Xylene 04/12/05 KWG0506003 8.0 1.2 1 04/12/05 ND U Styrene 1 KWG0506003 8.0 1.3 04/12/05 ND U 04/12/05 Bromoform KWG0506003 04/12/05 04/12/05 ND U 32 1.1 1 Isopropylbenzene ND U 04/12/05 KWG0506003 8.0 1.2 1 04/12/05 1,1,2,2-Tetrachloroethane KWG0506003 1.2 1 04/12/05 04/12/05 ND U 8.0 1.3-Dichlorobenzene KWG0506003 1,4-Dichlorobenzene ND U 8.0 1.4 1 04/12/05 04/12/05 KWG0506003 ND U 8.0 1.1 1 04/12/05 04/12/05 1,2-Dichlorobenzene

1.4

1.3

1.5

1.6

1.5

32

32

32

8.0

32

ND U

ND U

ND U

ND U

ND U

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 111  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 111  | 66-122            | 04/12/05         | Acceptable |

Comments:

RR47238

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005

Date Received: 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB04-0-0.5

Lab Code:

K2502497-011

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

8260B **Analysis Method:** 

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Dichlorodifluoromethane     | ND U     | 4.2 | 0.80 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Chloromethane               | ND U     | 4.2 | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Vinyl Chloride              | ND U     | 4.2 | 0.71 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromomethane                | ND U NJ  | 4.2 | 0.92 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Chloroethane                | ND U     | 4.2 | 0.89 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Trichlorofluoromethane      | ND U     | 4.2 | 0.84 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Trichlorotrifluoroethane    | ND U     | 4.2 | 0.85 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Acetone                     | ND U     | 17  | 12   | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1-Dichloroethene          | ND U     | 4.2 | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Methyl Acetate              | ND U     | 4.2 | 0.85 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Carbon Disulfide            | ND U     | 4.2 | 1.8  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Diisopropyl Ether           | ND U     | 8.4 | 0.39 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Methylene Chloride          | ND U     | 8.4 | 2.9  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Methyl tert-Butyl Ether     | ND U     | 4.2 | 0.75 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| trans-1,2-Dichloroethene    | ND U     | 4.2 | 0.84 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1-Dichloroethane          | ND U     | 4.2 | 0.89 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 2-Butanone (MEK)            | ND U     | 17  | 14   | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| cis-1,2-Dichloroethene      | ND U     | 4.2 | 0.95 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Chloroform                  | ND U     | 4.2 | 0.65 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 4.2 | 0.65 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Cyclohexane                 | LU U DN  | 4.2 | 0.77 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Carbon Tetrachloride        | ND U     | 4.2 | 0.69 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 4.2 | 0.77 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Benzene                     | ND U     | 4.2 | 0.90 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Trichloroethene (TCE)       | ND U     | 4.2 | 0.32 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dichloropropane         | ND U     | 4.2 | 0.83 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromodichloromethane        | ND U     | 4.2 | 0.61 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Methylcyclohexane           | ND U UJ  | 4.2 | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 2-Hexanone                  | ND U     | 17  | 7.0  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| cis-1,3-Dichloropropene     | ND U     | 4.2 | 0.87 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Toluene                     | ND U     | 4.2 | 0.96 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| trans-1,3-Dichloropropene   | ND U     | 4.2 | 0.69 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1,2-Trichloroethane       | ND U     | 4.2 | 0.79 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

1 of 2 Page

964

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB04-0-0.5

Lab Code:

K2502497-011

Units: ug/Kg Basis: Dry

Level: Low

Extraction

| Extraction Method: | EPA 5035 |
|--------------------|----------|
| Analysis Method:   | 8260B    |

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 17  | 6.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.2 | 0.36 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND U     | 4.2 | 0.69 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 17  | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND U     | 4.2 | 0.80 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND U     | 4.2 | 0.65 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND U     | 4.2 | 1.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND U     | 4.2 | 0.79 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND U     | 4.2 | 0.84 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND U     | 4.2 | 0.88 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND U     | 17  | 0.78 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.2 | 0.85 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.2 | 0.81 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,4-Dichlorobenzene         | ND U     | 4.2 | 0.94 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.2 | 0.75 | 1 ·      | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 17  | 0.97 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 17  | 0.88 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND U     | 17  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromochloromethane          | ND U     | 4.2 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 17  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 105  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB04-4-5

Lab Code:

K2502497-012

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloromethane               | ND U     | 8.6 | 1.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Vinyl Chloride              | ND U     | 8.6 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromomethane                | ND U UJ  | 8.6 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroethane                | ND U     | 8.6 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorofluoromethane      | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorotrifluoroethane    | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Acetone                     | ND U     | 35  | 18   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethene          | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl Acetate              | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Disulfide            | ND U     | 8.6 | 2.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Diisopropyl Ether           | ND U     | 18  | 0.59 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylene Chloride          | ND U     | 18  | 4.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl tert-Butyl Ether     | ND U     | 8.6 | 1.2  | . 1 .    | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,2-Dichloroethene    | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethane          | ND U     | 8.6 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Butanone (MEK)            | ND U     | 35  | 21   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,2-Dichloroethene      | ND U     | 8.6 | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroform                  | ND U     | 8.6 | 0.99 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 8.6 | 0.99 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Cyclohexane                 | LN U DN  | 8.6 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Tetrachloride        | ND U     | 8.6 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 8.6 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Benzene                     | ND U     | 8.6 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichloroethene (TCE)       | ND U     | 8.6 | 0.49 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloropropane         | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromodichloromethane        | ND U     | 8.6 | 0.92 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylcyclohexane           | ND U UJ  | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Hexanone                  | ND U     | 35  | 11   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,3-Dichloropropene     | ND U     | 8.6 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Toluene                     | ND U     | 8.6 | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,3-Dichloropropene   | ND U     | 8.6 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2-Trichloroethane       | ND U     | 8.6 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
|                             |          |     |      |          |           |          |            |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

Page 1 of 2

966

RR47238

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R4-SB04-4-5 K2502497-012

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 35  | 9.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND U     | 8.6 | 0.54 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND U     | 8.6 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 35  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND U     | 8.6 | 0.99 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND U     | 8.6 | 2.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND U     | 8.6 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND U     | 8.6 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND U     | 35  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzene         | ND U     | 8.6 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,4-Dichlorobenzene         | ND U     | 8.6 | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND U     | 8.6 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 35  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 35  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND U     | 35  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromochloromethane          | ND U     | 8.6 | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 35  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 106  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 103  | 66-122            | 04/12/05         | Acceptable |

Comments:

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Form 1A - Organic

SuperSet Reference: RR47238

2 of 2 Page

967

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date

Date Collected: 04/06/2005

**Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Dilution

Date

Sample Name:

TO63-R5-SB04-0-0.5

Lab Code:

K2502497-013

Extra Analy 5035

Units: ug/Kg Basis: Dry

Level: Low

**Extraction** 

| ection | Method: | EPA 503 |
|--------|---------|---------|
| vsis M | lethod: | 8260B   |

|                             |          |     |      | Dilution | Date      | Dutt     | MARINE MECHOIL |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|----------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot            | Note |
| Dichlorodifluoromethane     | ND U     | 4.5 | 0.79 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Chloromethane               | ND U     | 4.5 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Vinyl Chloride              | ND U     | 4.5 | 0.70 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Bromomethane                | LN U DN  | 4.5 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Chloroethane                | ND U     | 4.5 | 0.88 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Trichlorofluoromethane      | ND U     | 4.5 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Trichlorotrifluoroethane    | ND U     | 4.5 | 0.84 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Acetone                     | ND U     | 18  | 12   | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 1,1-Dichloroethene          | ND U     | 4.5 | 0.80 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Methyl Acetate              | ND U     | 4.5 | 0.84 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Carbon Disulfide            | ND U     | 4.5 | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Diisopropyl Ether           | ND U     | 8.9 | 0.39 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Methylene Chloride          | ND U     | 8.9 | 2.9  | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Methyl tert-Butyl Ether     | ND U     | 4.5 | 0.74 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| trans-1,2-Dichloroethene    | ND U     | 4.5 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 1,1-Dichloroethane          | ND U     | 4.5 | 0.88 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 2-Butanone (MEK)            | ND U     | 18  | 14   | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| cis-1,2-Dichloroethene      | ND U     | 4.5 | 0.94 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Chloroform                  | ND U     | 4.5 | 0.65 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 4.5 | 0.65 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Cyclohexane                 | ND U NJ  | 4.5 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Carbon Tetrachloride        | ND U     | 4.5 | 0.68 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 4.5 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Benzene                     | ND U     | 4.5 | 0.89 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Trichloroethene (TCE)       | ND U     | 4.5 | 0.32 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 1,2-Dichloropropane         | ND U     | 4.5 | 0.82 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Bromodichloromethane        | ND U     | 4.5 | 0.60 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Methylcyclohexane           | LN U DN  | 4.5 | 0.80 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 2-Hexanone                  | ND U     | 18  | 6.9  | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| cis-1,3-Dichloropropene     | ND U     | 4.5 | 0.86 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| Toluene                     | ND U     | 4.5 | 0.95 | 1        | 04/12/05  | 04/12/05 | KWG0506003     |      |
| trans-1,3-Dichloropropene   | ND U     | 4.5 | 0.68 | 1000     | 04/12/05  | 04/12/05 | KWG0506003     |      |
| 1,1,2-Trichloroethane       | ND U     | 4.5 | 0.78 | 1004     | 04/12/05  | 04/12/05 | KWG0506003     |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

1 of 2 Page

RR47238

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497

**Date Collected:** 04/06/2005 Date Received: 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB04-0-0.5

Lab Code:

K2502497-013

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 18  | 6.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.5 | 0.35 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND U     | 4.5 | 0.68 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 18  | 0.89 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND U     | 4.5 | 0.79 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND U     | 4.5 | 0.65 | 1 .      | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND U     | 4.5 | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND U     | 4.5 | 0.78 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND U     | 4.5 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND U     | 4.5 | 0.87 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND U     | 18  | 0.77 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.5 | 0.84 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.5 | 0.80 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,4-Dichlorobenzene         | ND U     | 4.5 | 0.93 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.5 | 0.74 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 18  | 0.96 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 18  | 0.87 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND U     | 18  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromochloromethane          | ND U     | 4.5 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 18  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 105  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 103  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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Form 1A - Organic

2 of 2 Page

SuperSet Reference: RR47238

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

# **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB04-5-6

Lab Code:

K2502497-014

**Extraction Method: Analysis Method:** 

8260B

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

|                             |        |      |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q    | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND     | U    | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloromethane               | ND '   | U    | 8.3 | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Vinyl Chloride              | ND 1   | U    | 8.3 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromomethane                |        | UUJ  | 8.3 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroethane                |        | U    | 8.3 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorofluoromethane      | ND 1   | U    | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorotrifluoroethane    | ND 1   | U    | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Acetone                     | 23 .   |      | 33  | 18   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethene          | ND 1   | U    | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl Acetate              | ND 1   |      | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Disulfide            | ND 1   | U    | 8.3 | 2.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Diisopropyl Ether           | ND I   | U    | 17  | 0.59 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylene Chloride          | ND I   |      | 17  | 4.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl tert-Butyl Ether     | ND I   |      | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,2-Dichloroethene    | ND I   | IJ   | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethane          | ND I   |      | 8.3 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Butanone (MEK)            | ND I   | J    | 33  | 21   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,2-Dichloroethene      | ND U   | J    | 8.3 | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroform                  | ND U   |      | 8.3 | 0.98 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,1-Trichloroethane (TCA) | ND U   | J    | 8.3 | 0.98 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Cyclohexane                 | ND U   | tu u | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Tetrachloride        | ND U   | J    | 8.3 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloroethane (EDC)    | ND (   | J    | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Benzene                     | ND U   | J    | 8.3 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichloroethene (TCE)       | ND (   | J    | 8.3 | 0.48 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloropropane         | ND U   | J    | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromodichloromethane        | ND U   | J    | 8.3 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylcyclohexane           | ND U   | v    | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Hexanone                  | ND U   | J    | 33  | 11   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,3-Dichloropropene     | ND U   | J    | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Toluene                     | ND U   |      | 8.3 | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,3-Dichloropropene   | ND U   |      | 8.3 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2-Trichloroethane       | ND U   | J    | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

Comments:

Page 1 of 2

970

Printed: 04/20/2005 12:26:56

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

**Volatile Organic Compounds** 

Sample Name:

TO63-R5-SB04-5-6

Lab Code:

K2502497-014

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

8260B **Analysis Method:** 

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 33  | 9.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND     | U | 8.3 | 0.53 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND     | U | 8.3 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 33  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND     | U | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND     | U | 8.3 | 0.98 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND     | U | 8.3 | 2.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND     | U | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND     | U | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND     | U | 8.3 | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND     | U | 33  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzenc         | ND     | U | 8.3 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,4-Dichlorobenzene         | ND     | U | 8.3 | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND     | U | 8.3 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 33  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 33  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND     | U | 33  | 1.6  | 11       | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromochloromethane          | ND     | U | 8.3 | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 33  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 105  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 105  | 66-122            | 04/12/05         | Acceptable |

Comments:

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB02-0-0.5

Lab Code:

K2502497-015

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

1 of 2

Level: Low

| DALI ACLI | on Michiga. | LITIO |
|-----------|-------------|-------|
| Analysis  | Method:     | 8260B |

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note                                    |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|-----------------------------------------|
| Dichlorodifluoromethane     | ND U     | 4.8 | 0.80 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        | 11010                                   |
| Chloromethane               | ND U     | 4.8 | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Vinyl Chloride              | ND U     | 4.8 | 0.71 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Bromomethane                | ND U UJ  | 4.8 | 0.91 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        | ······                                  |
| Chloroethane                | ND U     | 4.8 | 0.89 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Trichlorofluoromethane      | ND U     | 4.8 | 0.83 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Trichlorotrifluoroethanc    | ND U     | 4.8 | 0.85 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        | *************************************** |
| Acetone                     | ND U     | 19  | 12   | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 1,1-Dichloroethene          | ND U     | 4.8 | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Methyl Acetate              | ND U     | 4.8 | 0.85 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Carbon Disulfide            | ND U     | 4.8 | 1.8  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Diisopropyl Ether           | ND U     | 9.5 | 0.39 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Methylene Chloride          | ND U     | 9.5 | 2.9  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        | *****                                   |
| Methyl tert-Butyl Ether     | ND U     | 4.8 | 0.74 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| trans-1,2-Dichloroethene    | ND U     | 4.8 | 0.83 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 1,1-Dichloroethane          | ND U     | 4.8 | 0.89 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 2-Butanone (MEK)            | ND U     | 19  | 14   | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| cis-1,2-Dichloroethene      | ND U     | 4.8 | 0.95 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Chloroform                  | ND U     | 4.8 | 0.65 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 1,1,1-Trichloroethane (TCA) | ND U     | 4.8 | 0.65 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Cyclohexane                 | ND U UJ  | 4.8 | 0.77 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Carbon Tetrachloride        | ND U     | 4.8 | 0.69 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 1,2-Dichloroethane (EDC)    | ND U     | 4.8 | 0.77 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Benzene                     | ND U     | 4.8 | 0.90 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Trichloroethene (TCE)       | ND U     | 4.8 | 0.32 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 1,2-Dichloropropane         | ND U     | 4.8 | 0.82 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Bromodichloromethane        | ND U     | 4.8 | 0.61 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Methylcyclohexane           | ND U U.J | 4.8 | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 2-Hexanone                  | ND U     | 19  | 7.0  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| cis-1,3-Dichloropropene     | ND U     | 4.8 | 0.87 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| Toluene                     | ND U     | 4.8 | 0.96 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| trans-1,3-Dichloropropene   | ND U     | 4.8 | 0.69 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |
| 1,1,2-Trichloroethane       | ND U     | 4.8 | 0.79 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |                                         |

Comments:

Form 1A - Organic Page

SuperSet Reference:

RR47238

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 Date Received: 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB02-0-0.5

Lab Code:

K2502497-015

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Basis: Dry

Level: Low

Units: ug/Kg

|                             | Powell O | MRL                                     | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----------------------------------------|------|--------------------|-------------------|------------------|-------------------|------|
| Analyte Name                | Result Q | *************************************** |      | ractui             |                   | <u>`</u>         | KWG0506003        |      |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 19                                      | 6.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Tetrachloroethene (PCE)     | ND U     | 4.8                                     | 0.36 | 1                  | 04/12/05          | 04/12/05         |                   |      |
| Dibromochloromethane        | ND U     | 4.8                                     | 0.69 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 19                                      | 0.90 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Chlorobenzene               | ND U     | 4.8                                     | 0.80 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Ethylbenzene                | ND U     | 4.8                                     | 0.65 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| m,p-Xylenes                 | ND U     | 4.8                                     | 1.8  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| o-Xylene                    | ND U     | 4.8                                     | 0.79 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Styrene                     | ND U     | 4.8                                     | 0.83 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromoform                   | ND U     | 4.8                                     | 0.88 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Isopropylbenzene            | ND U     | 19                                      | 0.78 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.8                                     | 0.85 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,3-Dichlorobenzene         | ND U     | 4.8                                     | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,4-Dichlorobenzene         | ND U     | 4.8                                     | 0.94 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dichlorobenzene         | ND U     | 4.8                                     | 0.74 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 19                                      | 0.97 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,4-Trichlorobenzene      | ND U     | 19                                      | 0.88 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Naphthalene                 | ND U     | 19                                      | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromochloromethane          | ND U     | 4.8                                     | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,3-Trichlorobenzene      | ND U     | 19                                      | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 105  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 110  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 110  | 66-122            | 04/12/05         | Acceptable |

Comments:

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Form 1A - Organic

Page 2 of 2

SuperSet Reference: RR47238

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R5-SB02-3-4 K2502497-016

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U     | 10  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloromethane               | ND U     | 10  | 2.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Vinyl Chloride              | ND U     | 10  | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromomethane                | LN U DN  | 10  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroethane                | ND U     | 10  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorofluoromethane      | ND U     | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorotrifluoroethane    | ND U     | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Acetone                     | ND U     | 40  | 20   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethene          | ND U     | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl Acetate              | ND U     | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Disulfide            | ND U     | 10  | 3.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Diisopropyl Ether           | ND U     | 20  | 0.68 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylene Chloride          | ND U     | 20  | 5.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl tert-Butyl Ether     | ND U     | 10  | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,2-Dichloroethene    | ND U     | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethane          | ND U     | 10  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Butanone (MEK)            | ND U     | 40  | 24   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,2-Dichloroethene      | ND U     | 10  | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroform                  | ND U     | 10  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 10  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Cyclohexane                 | ND U W   | 10  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Tetrachloride        | ND U     | 10  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 10  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Benzene                     | ND U     | 10  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichloroethene (TCE)       | ND U     | 10  | 0.56 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloropropane         | ND U     | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromodichloromethane        | ND U     | 10  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylcyclohexanc           | LN U DN  | 10  | 1.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Hexanone                  | ND U     | 40  | 13   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,3-Dichloropropene     | ND U     | 10  | 1.6  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Toluene                     | ND U     | 10  | 1.7  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,3-Dichloropropene   | ND U     | 10  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2-Trichloroethane       | ND U     | 10  | 1.4  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
|                             |          |     |      |          |           |          |            |      |

Comments:

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Form 1A - Organic

Page 1 of 2

SuperSet Reference: RR47238

Analytical Results

Battelle Memorial Institute Client: Novato Ballfields/G486063 Project:

Soil Sample Matrix:

Service Request: K2502497 Date Collected: 04/06/2005 Date Received: 04/07/2005

#### **Volatile Organic Compounds**

Sample Name: K2502497-016 Lab Code:

**Extraction Method:** 8260B **Analysis Method:** 

Units: ug/Kg TO63-R5-SB02-3-4 Basis: Dry Level: Low EPA 5035

Extraction Dilution Date Date Note Lot Analyzed Result Q MRL MDL **Factor** Extracted **Analyte Name** KWG0506003 04/12/05 04/12/05 40 1 11 4-Methyl-2-pentanone (MIBK) ND U KWG0506003 04/12/05 04/12/05 1 10 0.62 Tetrachloroethene (PCE) ND U 04/12/05 04/12/05 KWG0506003 1 10 1.2 ND U Dibromochloromethane KWG0506003 40 1.6 1 04/12/05 04/12/05 ND U 1.2-Dibromoethane (EDB) KWG0506003 04/12/05 10 1.4 1 04/12/05 ND U Chlorobenzene 04/12/05 KWG0506003 1 04/12/05 1.2 ND U 10 Ethylbenzene KWG0506003 04/12/05 04/12/05 ND U 10 3.0 1 m,p-Xylenes KWG0506003 04/12/05 04/12/05 ND U 10 1.4 1 o-Xylene KWG0506003 04/12/05 04/12/05 10 1.5 1 ND U Styrene KWG0506003 04/12/05 1 04/12/05 10 1.6 ND U Bromoform KWG0506003 04/12/05 1 04/12/05 ND U 40 1.4 Isopropylbenzene KWG0506003 04/12/05 04/12/05 10 1.5 1 ND U 1,1,2,2-Tetrachloroethane KWG0506003 1.5 1 04/12/05 04/12/05 10 ND U 1.3-Dichlorobenzene KWG0506003 04/12/05 1.7 1 04/12/05 ND U 10 1.4-Dichlorobenzene KWG0506003 10 04/12/05 04/12/05 1.3 1 ND U 1,2-Dichlorobenzene KWG0506003 1 04/12/05 04/12/05 40 1.7 1,2-Dibromo-3-chloropropane ND U KWG0506003 04/12/05 04/12/05 ND U 40 1.6 1 1,2,4-Trichlorobenzene KWG0506003 04/12/05 04/12/05 40 1.8 1 ND U Naphthalene KWG0506003 04/12/05 04/12/05 ND U 10 2.0 1 Bromochloromethane KWG0506003 04/12/05 04/12/05 40 1.8 1 ND U 1,2,3-Trichlorobenzene

| Surrogate Name       | %Rcc | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 109  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 107  | 66-122            | 04/12/05         | Acceptable |

Comments:

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005

Date Received: 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB01-0.0.5

Lab Code:

K2502497-017

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     | 3 K W Y | Dilution | Date      | Date     | Extraction<br>Lot        | Note |
|-----------------------------|----------|-----|---------|----------|-----------|----------|--------------------------|------|
| Analyte Name                | Result Q | MRL | MDL     | Factor   | Extracted | Analyzed |                          | Note |
| Dichlorodifluoromethane     | ND U     | 6.2 | 0.87    | 1        | 04/12/05  | 04/12/05 | KWG0506003<br>KWG0506003 |      |
| Chloromethane               | ND U     | 6.2 | 1.3     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Vinyl Chloride              | ND U     | 6.2 | 0.77    | 1        | 04/12/05  | 04/12/05 |                          |      |
| Bromomethane                | LN n dn  | 6.2 | 1.0     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Chloroethane                | ND U     | 6.2 | 0.97    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Trichlorofluoromethane      | ND U     | 6.2 | 0.91    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Trichlorotrifluoroethane    | ND U     | 6.2 | 0.92    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Acetone                     | 44       | 25  | 13      | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 1,1-Dichloroethene          | ND U     | 6.2 | 0.88    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Methyl Acetate              | ND U     | 6.2 | 0.92    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Carbon Disulfide            | ND U     | 6.2 | 1.9     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Diisopropyl Ether           | ND U     | 13  | 0.43    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Methylene Chloride          | ND U     | 13  | 3.1     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Methyl tert-Butyl Ether     | ND U     | 6.2 | 0.81    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| trans-1,2-Dichloroethene    | ND U     | 6.2 | 0.91    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 1,1-Dichloroethane          | ND U     | 6.2 | 0.97    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 2-Butanone (MEK)            | ND U     | 25  | 15      | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| cis-1,2-Dichloroethene      | ND U     | 6.2 | 1.1     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Chloroform                  | ND U     | 6.2 | 0.71    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 6.2 | 0.71    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Cyclohexane                 | LN u dn  | 6.2 | 0.83    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Carbon Tetrachloride        | ND U     | 6.2 | 0.75    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 6.2 | 0.83    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Benzene                     | ND U     | 6.2 | 0.98    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Trichloroethene (TCE)       | ND U     | 6.2 | 0.35    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 1,2-Dichloropropane         | ND U     | 6.2 | 0.90    | 1        | 04/12/05  | 04/12/05 | KWG0506003               | . ,  |
| Bromodichloromethane        | ND U     | 6.2 | 0.66    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Methylcyclohexane           | ND U UJ  | 6.2 | 0.88    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 2-Hexanone                  | ND U     | 25  | 7.6     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| cis-1,3-Dichloropropene     | ND U     | 6.2 | 0.95    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| Toluene                     | ND U     | 6.2 | 1.1     | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| trans-1,3-Dichloropropene   | ND U     | 6.2 | 0.75    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |
| 1,1,2-Trichloroethane       | ND U     | 6.2 | 0.86    | 1        | 04/12/05  | 04/12/05 | KWG0506003               |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

Page 1 of 2

976

Analytical Results

Client:

Battelle Memorial Institute

Project:

Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005

**Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB01-0.0.5

Lab Code:

K2502497-017

**Extraction Method:** 

EPA 5035

**Analysis Method:** 

8260B

Units: ug/Kg Basis: Dry

Level: Low

| A. N. W.                    | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Analyte Name                |          | 25  | 6.9  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 4-Methyl-2-pentanone (MIBK) | ND U     |     | 0.39 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Tetrachloroethene (PCE)     | ND U     | 6.2 |      | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Dibromochloromethane        | ND U     | 6.2 | 0.75 |                    |                   |                  | KWG0506003        |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 25  | 0.98 | 1                  | 04/12/05          | 04/12/05         |                   |      |
| Chlorobenzene               | ND U     | 6.2 | 0.87 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Ethylbenzene                | ND U     | 6.2 | 0.71 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
|                             | 2.0 J    | 6.2 | 1.9  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| m,p-Xylenes                 | 1.1 J    | 6.2 | 0.86 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| o-Xylene                    | ND U     | 6.2 | 0.91 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Styrene                     |          |     | 0.96 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromoform                   | ND U     | 6.2 | 0.90 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Isopropylbenzene            | ND U     | 25  |      | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 6.2 | 0.92 | 1                  |                   |                  | KWG0506003        |      |
| 1,3-Dichlorobenzene         | ND U     | 6.2 | 0.88 | 1                  | 04/12/05          | 04/12/05         |                   |      |
| 1,4-Dichlorobenzene         | ND U     | 6.2 | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dichlorobenzene         | ND U     | 6.2 | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 25  | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
|                             | ND U     | 25  | 0.96 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,4-Trichlorobenzene      | ND U     | 25  | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Naphthalene                 |          |     | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromochloromethane          | ND U     | 6.2 |      | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,3-Trichlorobenzene      | ND U     | 25  | 1.2  | 1                  | 04/12/03          | 04/12/03         |                   |      |

| Surrogate Name                                       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|------------------------------------------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane Toluene-d8 4-Bromofluorobenzene | 107  | 70-119            | 04/12/05         | Acceptable |
|                                                      | 108  | 72-121            | 04/12/05         | Acceptable |
|                                                      | 110  | 66-122            | 04/12/05         | Acceptable |

Comments:

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

TO63-R5-SB03-0.0.5

Lab Code:

K2502497-018

Extraction Method: EPA 5035 **Analysis Method:** 

8260B

Units: ug/Kg Basis: Dry

Level: Low

| Nanlyte Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |          |     |      | Dilution  | Date      | Date     | Extraction |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------|-----|------|-----------|-----------|----------|------------|------|
| Dichlorodifluoromethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Analyte Name             | Result Q | MRL | MDL  | Factor    | Extracted | Analyzed | Lot        | Note |
| Chloromethane   ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | ND U     | 4.5 | 0.77 | 1         | 04/12/05  | 04/12/05 |            |      |
| Vinyl Chloride         ND         U         4.5         0.68         1         04/12/05         04/12/05         kWG0506003           Bromomethane         ND         U         4.5         0.88         1         04/12/05         04/12/05         kWG0506003           Chloroethane         ND         U         4.5         0.88         1         04/12/05         04/12/05         kWG0506003           Trichlorotrifluoroethane         ND         U         4.5         0.81         1         04/12/05         04/12/05         kWG0506003           Acetone         ND         U         4.5         0.81         1         04/12/05         04/12/05         kWG0506003           Methyl Acetate         ND         U         4.5         0.78         1         04/12/05         04/12/05         kWG0506003           Methyl Acetate         ND         U         4.5         0.81         1         04/12/05         04/12/05         kWG0506003           Methyl Acetate         ND         U         4.5         0.81         1         04/12/05         04/12/05         kWG0506003           Diisopropyl Ether         ND         U         8.9         2.8         1         04/12/05         04/12/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | ND U     | 4.5 |      | 1         | 04/12/05  |          |            |      |
| Bromomethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | ND U     | 4.5 | 0.68 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroethane         ND U         4.5 b. 0.85 b. 0.80 b. 0.4/12/05 b. WG0506003         CMG0506003 b. 0.80 b. 0.80 b. 0.80 b. 0.4/12/05 b. WG0506003           Trichloroftuoromethane         ND U         4.5 b. 0.81 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003         WG0506003 b. 0.81 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003           Acetone         ND U         4.5 b. 0.81 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003         WG0506003 b. 0.4/12/05 b. WG0506003           Mcthyl Acetate         ND U         4.5 b. 0.81 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003         WG0506003 b. 0.4/12/05 b. WG0506003           Mcthyl Acetate         ND U         4.5 b. 0.81 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003         WG0506003 b. 0.4/12/05 b. WG0506003           Diisopropyl Ether         ND U         4.5 b. 0.81 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003         WG0506003 b. 0.4/12/05 b. WG0506003           Methylene Chloride         ND U         8.9 b. 2.8 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003         WG0506003 b. 0.4/12/05 b. WG0506003           Methyl tert-Butyl Ether         ND U         4.5 b. 0.80 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003           1,1-Dichloroethene         ND U         4.5 b. 0.85 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003           1,1-Dichloroethane         ND U         4.5 b. 0.85 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003           2-Butanone (MEK)         ND U         4.5 b. 0.63 l. 0.4/12/05 b. 0.4/12/05 b. WG0506003           Chloroform         ND U <td></td> <td>LN U DN</td> <td>4.5</td> <td>0.88</td> <td>1</td> <td>04/12/05</td> <td></td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | LN U DN  | 4.5 | 0.88 | 1         | 04/12/05  |          |            |      |
| Trichlorofiluoromethane         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           Trichlorotrifluoroethane         ND U         4.5         0.81         1         04/12/05         04/12/05         KWG0506003           Acetone         ND U         4.5         0.78         1         04/12/05         04/12/05         KWG0506003           J.1-Dichloroethene         ND U         4.5         0.78         1         04/12/05         04/12/05         KWG0506003           Methyl Acetate         ND U         4.5         1.7         1         04/12/05         04/12/05         KWG0506003           Diisopropyl Ether         ND U         8.9         0.37         1         04/12/05         04/12/05         KWG0506003           Methylene Chloride         ND U         8.9         2.8         1         04/12/05         04/12/05         KWG0506003           Methyler-Butyl Ether         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           trans-1,2-Dichloroethane         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           1,1-I-Tichloroethane         ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | ND U     | 4.5 |      | 1         |           |          |            |      |
| Acetone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | ND U     | 4.5 | 0.80 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Acetone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Trichlorotrifluoroethane | ND U     | 4.5 | 0.81 | 1         | 04/12/05  | 04/12/05 |            |      |
| Methyl Acetate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | ND U     | 18  | 11   | 1         | 04/12/05  |          |            |      |
| Methyl Acetate         ND U         4.5         0.81         1         04/12/05         04/12/05         KWG0506003           Carbon Disulfide         ND U         4.5         1.7         1         04/12/05         04/12/05         KWG0506003           Disopropyl Ether         ND U         8.9         0.37         1         04/12/05         04/12/05         KWG0506003           Methylene Chloride         ND U         8.9         2.8         1         04/12/05         04/12/05         KWG0506003           Methyleter-Butyl Ether         ND U         4.5         0.71         1         04/12/05         04/12/05         KWG0506003           Methyl tert-Butyl Ether         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           Itrans-1,2-Dichloroethene         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           2-Butanone (MEK)         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           cis-1,2-Dichloroethane         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Cyclohexane         ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1,1-Dichloroethene       | ND U     | 4.5 | 0.78 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Disulfide         ND U         4.5         1.7         1         04/12/05         64/12/05         KWG6506003           Diisopropyl Ether         ND U         8.9         0.37         1         04/12/05         04/12/05         KWG0506003           Methylene Chloride         ND U         4.5         0.71         1         04/12/05         04/12/05         KWG0506003           Methyl tert-Butyl Ether         ND U         4.5         0.71         1         04/12/05         04/12/05         KWG0506003           Interpretation (MEK)         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           Chlorocethane         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           Chloroform         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           Chloroform         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Chloroform         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Chloroform         ND U         4.5         0.63 </td <td></td> <td>ND U</td> <td>4.5</td> <td>0.81</td> <td>1</td> <td>04/12/05</td> <td>04/12/05</td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          | ND U     | 4.5 | 0.81 | 1         | 04/12/05  | 04/12/05 |            |      |
| Diisopropyl Ether         ND U         8.9         0.37         1         04/12/05         04/12/05         KWG0506003           Methylene Chloride         ND U         8.9         2.8         1         04/12/05         04/12/05         KWG0506003           Methyl tert-Butyl Ether         ND U         4.5         0.71         1         04/12/05         04/12/05         KWG0506003           trans-1,2-Dichloroethene         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           1,1-Dichloroethane         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           2-Butanone (MEK)         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           2-Butanone (MEK)         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Cis-1,2-Dichloroethane (TCA)         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Cyclohexane         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           1,2-Dichloroethane (EDC)         N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | ND U     | 4.5 | 1.7  | 1         | 04/12/05  |          |            |      |
| Methylene Chloride         ND U         8.9         2.8         1         04/12/05         04/12/05         KWG0506003           Methyl tert-Butyl Ether         ND U         4.5         0.71         1         04/12/05         04/12/05         KWG0506003           trans-1,2-Dichloroethene         ND U         4.5         0.80         1         04/12/05         04/12/05         KWG0506003           1,1-Dichloroethane         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           2-Butanone (MEK)         ND U         4.5         0.85         1         04/12/05         04/12/05         KWG0506003           cis-1,2-Dichloroethene         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Chloroform         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Cyclohexane         ND U         4.5         0.63         1         04/12/05         04/12/05         KWG0506003           Cyclohexane         ND U         4.5         0.66         1         04/12/05         04/12/05         KWG0506003           1,2-Dichloroethane (EDC)         ND U         <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | ND U     | 8.9 | 0.37 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl tert-Butyl Ether         ND U         4.5         0.71         1         04/12/05         04/12/05         kWG0506003           trans-1,2-Dichloroethene         ND U         4.5         0.80         1         04/12/05         04/12/05         kWG0506003           1,1-Dichloroethane         ND U         4.5         0.85         1         04/12/05         04/12/05         kWG0506003           2-Butanone (MEK)         ND U         18         14         1         04/12/05         04/12/05         kWG0506003           cis-1,2-Dichloroethene         ND U         4.5         0.91         1         04/12/05         04/12/05         kWG0506003           Chloroform         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           1,1,1-Trichloroethane (TCA)         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           Cyclohexane         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           1,2-Dichloroethane (EDC)         ND U         4.5         0.66         1         04/12/05         04/12/05         kWG0506003           Trichloroethene (TCE)         ND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | ND U     | 8.9 | 2.8  | l         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,2-Dichloroethene         ND U         4.5         0.80         1         04/12/05         04/12/05         kWG0506003           1,1-Dichloroethane         ND U         4.5         0.85         1         04/12/05         04/12/05         kWG0506003           2-Butanone (MEK)         ND U         18         14         1         04/12/05         04/12/05         kWG0506003           cis-1,2-Dichloroethene         ND U         4.5         0.91         1         04/12/05         04/12/05         kWG0506003           Chloroform         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           1,1-Trichloroethane (TCA)         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           Cyclohexane         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           Carbon Tetrachloride         ND U         4.5         0.66         1         04/12/05         04/12/05         kWG0506003           1,2-Dichloroethane (EDC)         ND U         4.5         0.73         1         04/12/05         04/12/05         kWG0506003           Trichloroethene (TCE)         ND U <td></td> <td>ND U</td> <td>4.5</td> <td>0.71</td> <td>1</td> <td>04/12/05</td> <td></td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | ND U     | 4.5 | 0.71 | 1         | 04/12/05  |          |            |      |
| 2-Butanone (MEK) cis-1,2-Dichloroethene ND U 4.5 0.91 1 04/12/05 04/12/05 04/12/05 04/05/06003  Chloroform ND U 4.5 0.63 1 04/12/05 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003  1,1,1-Trichloroethane (TCA) ND U 4.5 0.63 1 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003  Cyclohexane ND U 4.5 0.63 1 04/12/05 04/12/05 04/12/05 04/05/06003  Cyclohexane ND U 4.5 0.66 1 04/12/05 04/12/05 04/12/05 04/05/06003  Carbon Tetrachloride ND U 4.5 0.66 1 04/12/05 04/12/05 04/12/05 04/05/06003  1,2-Dichloroethane (EDC) ND U 4.5 0.86 1 04/12/05 04/12/05 04/12/05 04/05/06003  Trichloroethene (TCE) ND U 4.5 0.31 1 04/12/05 04/12/05 04/12/05 04/05 04/05/06003  Trichloroethene (TCE) ND U 4.5 0.31 1 04/12/05 04/12/05 04/12/05 04/05/06003  Trichloroethene ND U 4.5 0.79 1 04/12/05 04/12/05 04/12/05 04/05/06003  Remondichloromethane ND U 4.5 0.58 1 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003  Methylcyclohexane ND U 4.5 0.78 1 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003  Cis-1,3-Dichloropropene ND U 4.5 0.83 1 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003  Toluene ND U 4.5 0.92 1 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003  Trichloropropene ND U 4.5 0.92 1 04/12/05 04/12/05 04/12/05 04/12/05 04/05/06003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2                        | ND U     | 4.5 | 0.80 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Butanone (MEK) cis-1,2-Dichloroethene ND U 4.5 0.91 1 04/12/05 04/12/05 KWG0506003  Chloroform ND U 4.5 0.63 1 04/12/05 04/12/05 KWG0506003  1,1,1-Trichloroethane (TCA) ND U 4.5 0.63 1 04/12/05 04/12/05 KWG0506003  Cyclohexane ND U 4.5 0.63 1 04/12/05 04/12/05 KWG0506003  Cyclohexane ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003  Carbon Tetrachloride ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003  1,2-Dichloroethane (EDC) ND U 4.5 0.73 1 04/12/05 04/12/05 KWG0506003  Trichloroethene (TCE) ND U 4.5 0.86 1 04/12/05 04/12/05 KWG0506003  Trichloroethene (TCE) ND U 4.5 0.31 1 04/12/05 04/12/05 KWG0506003  Trichloroethene (TCE) ND U 4.5 0.79 1 04/12/05 04/12/05 KWG0506003  Bromodichloromethane ND U 4.5 0.79 1 04/12/05 04/12/05 KWG0506003  Bromodichloromethane ND U 4.5 0.58 1 04/12/05 04/12/05 KWG0506003  Methylcyclohexane ND U 4.5 0.78 1 04/12/05 04/12/05 KWG0506003  Cyclohexane ND U 4.5 0.78 1 04/12/05 04/12/05 KWG0506003  Toluene ND U 4.5 0.83 1 04/12/05 04/12/05 KWG0506003  Toluene ND U 4.5 0.83 1 04/12/05 04/12/05 KWG0506003  Toluene ND U 4.5 0.92 1 04/12/05 04/12/05 KWG0506003  Toluene Toluene ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003  Toluene Toluene ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003  Toluene ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003  Toluene Toluene ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.1-Dichloroethane       | ND U     | 4.5 | 0.85 | 1         | 04/12/05  |          |            |      |
| cis-1,2-Dichloroethene         ND U         4.5         0.91         1         04/12/05         04/12/05         kWG0506003           Chloroform         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           1,1,1-Trichloroethane (TCA)         ND U         4.5         0.63         1         04/12/05         04/12/05         kWG0506003           Cyclohexane         ND U         4.5         0.66         1         04/12/05         04/12/05         kWG0506003           Carbon Tetrachloride         ND U         4.5         0.66         1         04/12/05         04/12/05         kWG0506003           1,2-Dichloroethane (EDC)         ND U         4.5         0.73         1         04/12/05         04/12/05         kWG0506003           Benzene         ND U         4.5         0.86         1         04/12/05         04/12/05         kWG0506003           Trichloroethene (TCE)         ND U         4.5         0.31         1         04/12/05         04/12/05         kWG0506003           1,2-Dichloropropane         ND U         4.5         0.79         1         04/12/05         04/12/05         kWG0506003           Bromodichloromethane         ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | •                        | ND U     | 18  | 14   | 1         |           |          |            |      |
| 1,1,1-Trichloroethane (TCA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ` ,                      | ND U     | 4.5 | 0.91 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Cyclohexane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Chloroform               | ND U     | 4.5 | 0.63 | 1         |           |          |            |      |
| Carbon Tetrachloride         ND U         4.5         0.66         1         04/12/05         04/12/05         KWG0506003           1,2-Dichloroethane (EDC)         ND U         4.5         0.73         1         04/12/05         04/12/05         KWG0506003           Benzene         ND U         4.5         0.86         1         04/12/05         04/12/05         KWG0506003           Trichloroethene (TCE)         ND U         4.5         0.31         1         04/12/05         04/12/05         KWG0506003           1,2-Dichloropropane         ND U         4.5         0.79         1         04/12/05         04/12/05         KWG0506003           Bromodichloromethane         ND U         4.5         0.58         1         04/12/05         04/12/05         KWG0506003           Methylcyclohexane         ND U         4.5         0.78         1         04/12/05         04/12/05         KWG0506003           2-Hexanone         ND U         4.5         0.83         1         04/12/05         04/12/05         KWG0506003           Toluene         ND U         4.5         0.92         1         04/12/05         04/12/05         KWG0506003           trans-1,3-Dichloropropene         ND U         4.5<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |          | 4.5 | 0.63 | 1         |           |          |            |      |
| 1,2-Dichloroethane (EDC)   ND U   4.5   0.73   1   04/12/05   04/12/05   KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Cyclohexane              | LN U DN  | 4.5 | 0.73 | 1         | 04/12/05  | 04/12/05 |            |      |
| 1,2-Dichloroethane (EDC)   ND U   4.5   0.73   1   04/12/05   04/12/05   KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Carbon Tetrachloride     | ND U     | 4.5 | 0.66 | 1         | 04/12/05  |          |            |      |
| Benzene         ND U         4.5         0.86         1         04/12/05         04/12/05         KWG0506003           Trichloroethene (TCE)         ND U         4.5         0.31         1         04/12/05         04/12/05         KWG0506003           1,2-Dichloropropane         ND U         4.5         0.79         1         04/12/05         04/12/05         KWG0506003           Bromodichloromethane         ND U         4.5         0.58         1         04/12/05         04/12/05         KWG0506003           Methylcyclohexane         ND U         4.5         0.78         1         04/12/05         04/12/05         KWG0506003           2-Hexanone         ND U         18         6.7         1         04/12/05         04/12/05         KWG0506003           cis-1,3-Dichloropropene         ND U         4.5         0.83         1         04/12/05         04/12/05         KWG0506003           Toluene         ND U         4.5         0.66         1         04/12/05         04/12/05         KWG0506003           trans-1,3-Dichloropropene         ND U         4.5         0.66         1         04/12/05         04/12/05         KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | ND U     | 4.5 | 0.73 | 1         |           |          |            |      |
| 1,2-Dichloropropane   ND U   4.5   0.79   1   04/12/05   04/12/05   04/12/05   KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ,                        | ND U     | 4.5 | 0.86 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloropropane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Trichloroethene (TCE)    | ND U     | 4.5 | 0.31 | 1         | 04/12/05  |          |            |      |
| Bromodichloromethane         ND U         4.5         0.58         1         04/12/05         04/12/05         KWG0506003           Methylcyclohexane         ND U         4.5         0.78         1         04/12/05         04/12/05         KWG0506003           2-Hexanone         ND U         18         6.7         1         04/12/05         04/12/05         KWG0506003           cis-1,3-Dichloropropene         ND U         4.5         0.83         1         04/12/05         04/12/05         KWG0506003           Toluene         ND U         4.5         0.92         1         04/12/05         04/12/05         KWG0506003           trans-1,3-Dichloropropene         ND U         4.5         0.66         1         04/12/05         04/12/05         KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | ND U     | 4.5 |      | 1         |           |          |            |      |
| 2-Hexanone ND U 18 6.7 1 04/12/05 04/12/05 KWG0506003 cis-1,3-Dichloropropene ND U 4.5 0.83 1 04/12/05 04/12/05 KWG0506003 Toluene ND U 4.5 0.92 1 04/12/05 04/12/05 KWG0506003 trans-1,3-Dichloropropene ND U 4.5 0.66 1 04/12/05 04/12/05 KWG0506003 trans-1,3-Dichloropropene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ,                        | ND U     | 4.5 | 0.58 | 1         | 04/12/05  | 04/12/05 |            |      |
| 2-Hexanone         ND U         18         6.7         1         04/12/05         04/12/05         KWG0506003           cis-1,3-Dichloropropene         ND U         4.5         0.83         1         04/12/05         04/12/05         KWG0506003           Toluene         ND U         4.5         0.92         1         04/12/05         04/12/05         KWG0506003           trans-1,3-Dichloropropene         ND U         4.5         0.66         1         04/12/05         04/12/05         KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Methylcyclohexane        | LN U DN  | 4.5 | 0.78 | 1         |           |          |            |      |
| Toluene ND U 4.5 0.66 1 04/12/05 KWG0506003 trans-1,3-Dichloropropene ND U 4.5 0.66 1 04/12/05 KWG0506003 KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | ND U     |     |      |           |           |          |            |      |
| trans-1,3-Dichloropropene ND U 4.5 0.66 1 04/12/05 KWG0506003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | cis-1,3-Dichloropropene  | ND U     | 4.5 | 0.83 | 1         | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trains-1,3-Dictinotopropene 14.5 0.00 1 1 0.00 WW.005.06.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Toluene                  | ND U     | 4.5 | 0.92 | 1         |           |          |            |      |
| " " O 4 /2 O 4 / |                          | ND U     | 4.5 | 0.66 | Town Town |           |          |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ,                        | ND U     | 4.5 | 0.76 | Tanada .  | 04/12/05  | 04/12/05 | KWG0506003 |      |

Comments:

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Form 1A - Organic

SuperSet Reference:

1 of 2 Page

978

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005 Date Received: 04/07/2005

#### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R5-SB03-0.0.5

**Extraction Method:** EPA 5035

K2502497-018

**Analysis Method:** 

8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             | Dowlf O  | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Analyte Name                | Result Q |     |      | Tactoi             | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 18  | 6.0  | 1                  |                   |                  | KWG0506003        |      |
| Tetrachloroethene (PCE)     | ND U     | 4.5 | 0.34 | 1                  | 04/12/05          | 04/12/05         |                   |      |
| Dibromochloromethane        | ND U     | 4.5 | 0.66 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 18  | 0,86 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Chlorobenzene               | ND U     | 4.5 | 0.77 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Ethylbenzene                | ND U     | 4.5 | 0.63 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| m,p-Xylenes                 | ND U     | 4.5 | 1.7  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| o-Xylene                    | ND U     | 4.5 | 0.76 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Styrene                     | ND U     | 4.5 | 0.80 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromoform                   | ND U     | 4.5 | 0.84 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Isopropylbenzene            | ND U     | 18  | 0.74 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.5 | 0.81 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,3-Dichlorobenzene         | ND U     | 4.5 | 0.78 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,4-Dichlorobenzene         | ND U     | 4.5 | 0.90 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dichlorobenzene         | ND U     | 4.5 | 0.71 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 18  | 0.93 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,4-Trichlorobenzene      | ND U     | 18  | 0.84 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Naphthalene                 | ND U     | 18  | 0.97 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromochloromethane          | ND U     | 4.5 | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,3-Trichlorobenzene      | ND U     | 18  | 0.98 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 110  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 108  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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Form 1A - Organic

979

Page 2 of 2

Analytical Results

Client:

Battelle Memorial Institute

Project:

Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB03-0.0.5

Lab Code:

K2502497-019

Extraction Method: Analysis Method:

EPA 5035 8260B Units: ug/Kg Basis: Dry

Level: Low

|                             | Damile O     | MRL        | MDL        | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed     | Extraction<br>Lot | Note  |
|-----------------------------|--------------|------------|------------|--------------------|-------------------|----------------------|-------------------|-------|
| Analyte Name                | Result Q     |            |            | 1                  | 04/12/05          | 04/12/05             | KWG0506003        | 11000 |
| Dichlorodifluoromethane     | ND U         | 8.5        | 1.2<br>1.7 | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Chloromethane               | ND U<br>ND U | 8.5<br>8.5 | 1.7        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Vinyl Chloride              |              |            |            |                    | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Bromomethane                | LN n du      | 8.5        | 1.4        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Chloroethane                | ND U         | 8.5        | 1.4<br>1.3 | 1<br>1             | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Trichlorofluoromethane      | ND U         | 8.5        |            |                    |                   |                      | KWG0506003        |       |
| Trichlorotrifluoroethane    | ND U         | 8.5        | 1.3        | 1                  | 04/12/05          | 04/12/05<br>04/12/05 | KWG0506003        |       |
| Acetone                     | <b>31</b> J  | 34         | 17         | 1                  | 04/12/05          |                      | KWG0506003        |       |
| 1,1-Dichloroethene          | ND U         | 8.5        | 1.2        | 1                  | 04/12/05          | 04/12/05             |                   |       |
| Methyl Acetate              | ND U         | 8.5        | 1.3        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Carbon Disulfide            | ND U         | 8.5        | 2.6        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Diisopropyl Ether           | ND U         | 17         | 0.58       | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Methylene Chloride          | ND U         | 17         | 4.3        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Methyl tert-Butyl Ether     | ND U         | 8.5        | 1.1        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| trans-1,2-Dichloroethene    | ND U         | 8.5        | 1.3        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 1,1-Dichloroethane          | ND U         | 8.5        | 1.4        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 2-Butanone (MEK)            | ND U         | 34         | 21         | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| cis-1,2-Dichloroethene      | ND U         | 8.5        | 1.5        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Chloroform                  | ND U         | 8.5        | 0.97       | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 1,1,1-Trichloroethane (TCA) | ND U         | 8.5        | 0.97       | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Cyclohexane                 | LN U DN      | 8.5        | 1.2        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Carbon Tetrachloride        | ND U         | 8.5        | 1.1        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 1,2-Dichloroethane (EDC)    | ND U         | 8.5        | 1.2        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Benzene                     | ND U         | 8.5        | 1.4        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Trichloroethene (TCE)       | ND U         | 8.5        | 0.48       | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 1,2-Dichloropropane         | ND U         | 8.5        | 1.3        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Bromodichloromethane        | ND U         | 8.5        | 0.90       | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Methylcyclohexane           | ND U UJ      | 8.5        | 1.2        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 2-Hexanone                  | ND U         | 34         | 11         | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| cis-1,3-Dichloropropene     | ND U         | 8.5        | 1.3        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| Toluene                     | ND U         | 8.5        | 1.5        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| trans-1,3-Dichloropropene   | ND U         | 8.5        | 1.1        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |
| 1,1,2-Trichloroethane       | ND U         | 8.5        | 1.2        | 1                  | 04/12/05          | 04/12/05             | KWG0506003        |       |

Comments:

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Form 1A - Organic

SuperSet Reference:

Page 1 of 2

980

RR47238

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497 **Date Collected: 04/06/2005** Date Received: 04/07/2005

**Volatile Organic Compounds** 

Sample Name:

TO63-R2-SB03-0.0.5

Lab Code:

K2502497-019

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

| Analyta Nama                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot        | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|--------------------------|------|
| Analyte Name                | ND U     | 34  | 9.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 8.5 | 0.53 | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Tetrachloroethene (PCE)     | ND U     | 8.5 | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Dibromochloromethane        |          |     | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 34  | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Chlorobenzene               | ND U     | 8.5 |      | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Ethylbenzene                | ND U     | 8.5 | 0.97 |                    |                   |                  | KWG0506003               |      |
| m,p-Xylenes                 | ND U     | 8.5 | 2.6  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| o-Xylene                    | ND U     | 8.5 | 1.2  | 1                  | 04/12/05          | 04/12/05         |                          |      |
| Styrene                     | ND U     | 8.5 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Bromoform                   | ND U     | 8.5 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Isopropylbenzene            | ND U     | 34  | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 8.5 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
|                             | ND U     | 8.5 | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,3-Dichlorobenzene         | ND U     | 8.5 | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,4-Dichlorobenzene         | ND U     | 8.5 | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,2-Dichlorobenzene         |          | 34  | 1.5  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,2-Dibromo-3-chloropropane | ND U     |     | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| 1,2,4-Trichlorobenzene      | ND U     | 34  |      | 1                  | 04/12/05          | 04/12/05         | KWG0506003               |      |
| Naphthalene                 | ND U     | 34  | 1.6  | 1                  |                   |                  |                          |      |
| Bromochloromethane          | ND U     | 8.5 | 1.7  | 1                  | 04/12/05          | 04/12/05         | KWG0506003<br>KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 34  | 1.6  | 1                  | 04/12/05          | 04/12/05         | V M QOOOOOO              |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 107  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 104  | 66-122            | 04/12/05         | Acceptable |

Comments:

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Form 1A - Organic

Page 2 of 2

SuperSet Reference:

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502497

Date Collected: 04/06/2005

**Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

TO63-R2-SB02-0.0.5

Lab Code:

K2502497-020

**Extraction Method:** 

EPA 5035

Analysis Method:

8260B

Units: ug/Kg
Basis: Dry

Level: Low

| Aughuta Noma                         | Result Q     | MRL        | MDL  | Dilution<br>Factor | Date<br>Extracted    | Date<br>Analyzed | Extraction<br>Lot        | Note |
|--------------------------------------|--------------|------------|------|--------------------|----------------------|------------------|--------------------------|------|
| Analyte Name Dichlorodifluoromethane | ND U         | 8.9        | 1.3  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Chloromethane                        | ND U         | 8.9        | 1.8  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Vinyl Chloride                       | ND U         | 8.9        | 1.1  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Bromomethane                         | ND U NJ      | 8.9        | 1.5  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               | •    |
| Chloroethane                         | ND U VC      | 8.9        | 1.4  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Trichlorofluoromethane               | ND U         | 8.9        | 1.3  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Trichlorotrifluoroethane             | ND U         | 8.9        | 1.4  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
|                                      | 27 J         | 36         | 18   | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Acetone 1,1-Dichloroethene           | ND U         | 8.9        | 1.3  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
|                                      | ND U         | 8.9        | 1.4  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Methyl Acetate                       | ND U         | 8.9<br>8.9 | 2.7  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Carbon Disulfide                     | ND U         | 18         | 0.61 | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Diisopropyl Ether                    |              |            | 4.5  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Methylene Chloride                   | ND U<br>ND U | 18<br>8.9  | 1.2  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Methyl tert-Butyl Ether              | ND U         | 8.9        | 1.2  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| trans-1,2-Dichloroethene             |              |            |      |                    |                      | 04/12/05         | KWG0506003               |      |
| 1,1-Dichloroethane                   | ND U         | 8.9        | 1.4  | 1                  | 04/12/05<br>04/12/05 | 04/12/05         | KWG0506003               |      |
| 2-Butanone (MEK)                     | ND U         | 36         | 22   | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| cis-1,2-Dichloroethene               | ND U         | 8.9        | 1.5  | 1                  |                      |                  |                          |      |
| Chloroform                           | ND U         | 8.9        | 1.1  | 1                  | 04/12/05             | 04/12/05         | KWG0506003<br>KWG0506003 |      |
| 1,1,1-Trichloroethane (TCA)          | ND U         | 8.9        | 1.1  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Cyclohexane                          | CN U DN      | 8.9        | 1.2  | 1                  | 04/12/05             | 04/12/05         |                          |      |
| Carbon Tetrachloride                 | ND U         | 8.9        | 1.1  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| 1,2-Dichloroethane (EDC)             | ND U         | 8.9        | 1.2  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Benzene                              | ND U         | 8.9        | 1.4  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Trichloroethene (TCE)                | ND U         | 8.9        | 0.50 | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| 1,2-Dichloropropane                  | ND U         | 8.9        | 1.3  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Bromodichloromethane                 | ND U         | 8.9        | 0.94 | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Methylcyclohexane                    | LN U DN      | 8.9        | 1.3  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| 2-Hexanone                           | ND U         | 36         | 11   | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| cis-1,3-Dichloropropene              | ND U         | 8.9        | 1.4  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| Toluene                              | ND U         | 8.9        | 1.5  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| trans-1,3-Dichloropropene            | ND U         | 8.9        | 1.1  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| 1,1,2-Trichloroethane                | ND U         | 8.9        | 1.3  | 1                  | 04/12/05             | 04/12/05         | KWG0506003               |      |
| -7-7                                 |              |            |      |                    |                      |                  |                          |      |

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Form 1A - Organic

SuperSet Reference:

RR47238

Page 1 of 2

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502497 Date Collected: 04/06/2005

**Date Received:** 04/07/2005

**Volatile Organic Compounds** 

Sample Name:

TO63-R2-SB02-0.0.5

Lab Code:

K2502497-020

E A

Units: ug/Kg Basis: Dry

Level: Low

| Extraction Method: | EPA 5035 |
|--------------------|----------|
| Analysis Method:   | 8260B    |

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| 4-Methyl-2-pentanone (MIBK) | ND U     | 36  | 9.8  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Tetrachloroethene (PCE)     | ND U     | 8.9 | 0.55 | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Dibromochloromethane        | ND U     | 8.9 | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 36  | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Chlorobenzene               | ND U     | 8.9 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Ethylbenzene                | ND U     | 8.9 | 1.1  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| m,p-Xylenes                 | ND U     | 8.9 | 2.7  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| o-Xylene                    | ND U     | 8.9 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Styrene                     | ND U     | 8.9 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromoform                   | ND U     | 8.9 | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Isopropylbenzene            | ND U     | 36  | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 8.9 | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,3-Dichlorobenzene         | ND U     | 8.9 | 1.3  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,4-Dichlorobenzene         | ND U     | 8.9 | 1.5  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dichlorobenzene         | ND U     | 8.9 | 1.2  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 36  | 1.6  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,4-Trichlorobenzene      | ND U     | 36  | 1.4  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Naphthalene                 | ND U     | 36  | 1.6  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| Bromochloromethane          | ND U     | 8.9 | 1.8  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |
| 1,2,3-Trichlorobenzene      | ND U     | 36  | 1.6  | 1                  | 04/12/05          | 04/12/05         | KWG0506003        |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 103  | 66-122 0-         | 04/12/05         | Acceptable |

Comments:

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Form 1A - Organic

Page

SuperSat Deference: DP47738

#### **VALIDATION COMPLETENESS WORKSHEET** LDC #: 13575A1

SDG #: K2502497

Level III

Laboratory: Columbia Analytical Services

Reviewer 2nd Reviewer

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                                |    | Comments                                |
|-------|------------------------------------------------|----|-----------------------------------------|
| 1.    | Technical holding times                        | A  | Sampling dates: 4/6/05                  |
| II.   | GC/MS Instrument performance check             | 4  | , · · · · · · · · · · · · · · · · · · · |
| III.  | Initial calibration                            | in | 70RSD = 30/15. SPECS                    |
| IV.   | Continuing calibration                         | w, | 70 D = 20. 1ev = >5 /0 V                |
| V.    | Blanks                                         | w  | ./                                      |
| VI.   | Surrogate spikes                               | A  |                                         |
| VII.  | Matrix spike/Matrix spike duplicates           | A  |                                         |
| VIII. | Laboratory control samples                     | A  | 205 D                                   |
| IX.   | Regional Quality Assurance and Quality Control | N  |                                         |
| X.    | Internal standards                             | A  |                                         |
| XI.   | Target compound identification                 | N  |                                         |
| XII.  | Compound quantitation/CRQLs                    | N  |                                         |
| XIII. | Tentatively identified compounds (TICs)        | N  |                                         |
| XIV.  | System performance                             | N  |                                         |
| XV.   | Overall assessment of data                     | A  | 0                                       |
| XVI.  | Field duplicates                               | ND | D=3+4.8+7063-R1-5B01-0-0.5(K)50499      |
| XVII. | Field blanks                                   | N  |                                         |

Note:

A = Acceptable

N = Not provided/applicable SW = See worksheet

ND = No compounds detected

R = Rinsate

D = Duplicate TB = Trip blank

EB = Equipment blank FB = Field blank

#### Validated Samples:

| M:              | 50il 5                 |         |                    |    |                       |                 |                |
|-----------------|------------------------|---------|--------------------|----|-----------------------|-----------------|----------------|
| 1/              | TO63-R2-SB04-0-0.5     | 11      | TO63-R4-SB04-0-0.5 | 21 | TO63-R1-SB01-0-0.5MS  | 31/             | KW40505901-3   |
| 21              | TO63-R2-SB04-3-4       | 12      | TO63-R4-SB04-4-5   | 22 | TO63-R1-SB01-0-0.5MSD | 32 <sup>2</sup> | KW \$0506003-3 |
| 3 1             | TO63-R2-SB01-0-0.5     | 13      | 1063-R5-SB04-0-0.5 | 23 |                       | 33              | HUK-050605 = 3 |
| 4               | TO63-R2-SB01-0-0.5 Dup | 142     | TO63-R5-SB04-5-6   | 24 |                       | 34              |                |
| 5 /             | TO63-R2-SB01-1-2       | 152     | TO63-R5-SB02-0-0 5 | 25 |                       | 35              |                |
| 6               | TO63-R1-SB04-0-0.5     | 16      | TO63-R5-SB02-3-4   | 26 |                       | 36              |                |
| 7 [             | TO63-R1-SB04-4-5       | 17      | TO63-R5-SB01-0-0.5 | 27 |                       | 37              |                |
| 8               | TO63-R1-SB01-0-0.5     | 18<br>2 | TO63-R5-SB03-0-0.5 | 28 |                       | 38              |                |
| 9 2             | TO63-R1-SB03-0-0.5     | 19      | TO63-R2-SB03-0-0.5 | 29 |                       | 39              |                |
| 10 <sup>2</sup> | TO63-R1-SB03-4-5       | 20      | TO63-R2-SB02-0-0.5 | 30 |                       | 40              |                |

# TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

| THE PROPERTY OF THE PROPERTY O |                                 |                               |                                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------|--------------------------------------------|---------------------------|
| A. Chloromethane*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | U. 1,1,2-Trichloroethane        | OO. 2,2-Dichloropropane       | III. n-Buiylbenzene                        | CCCC.1-Chlorohexane       |
| B. Bromomethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | V. Benzene                      | PP. Bromochloromethane        | JJJ. 1,2-Dichloroberzene                   | DDDD. Isopropyl alcohol   |
| C. Vinyl choride**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | W. trans-1,3-Dichloropropene    | QQ. 1,1-Dichloropropene       | KKK. 1,2,4-Trichlorabenzene                | EEEE. Acetonitrile        |
| D. Chloroethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | X. Bromoform*                   | RR. Dibromomethane            | LLL. Hexachlorobutadiene                   | FFFF. Acrolein            |
| E. Methylene chloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Y. 4-Methyl-2-pentanone         | SS. 1,3-Dichloropropane       | MMM. Naphthalene                           | GGGG. Acrylonitrile       |
| F. Acetone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Z. 2-Hexanone                   | TT. 1,2-Dibromoethane         | NNN. 1,2,3-Trichlorobenzene                | HHHH. 1,4-Dioxane         |
| G. Carbon disulfide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AA. Tetrachloroethene           | UU. 1,1,1,2-Tetrachloroethane | OOO. 1,3,5-Trichlorobenzene                | IIII. Isobutyl alcohol    |
| H. 1,1-Dichloroethane**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | BB. 1,1,2,2-Tetrachloroethane*  | VV. Isopropylbenzene          | PPP. trans-1,2-Dichloroethene              | JJJJ, Methacrylonitrile   |
| I. 1,1-Dichloroethane*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CC. Toluene**                   | WW. Bromobenzene              | QQQ. ds-1,2-Dichlcroethene                 | KKKK. Propionitrile       |
| J. 1,2-Dichloroethene, total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DD. Chlorobenzene*              | XX. 1,2,3-Trichloropropane    | RRR. m.p-Xylenes                           | LLLL. Methyl ethyl ketone |
| K, Chloroform**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EE. Ethylberzene**              | YY. n-Propylbenzene           | SSS. o-Xylene                              | MMMM. Ethyl ether         |
| L. 1,2-Dichloroethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FF. Styrene                     | ZZ. 2-Chlorotoluene           | TTT. 1,1,2-Trichlorc-1,2,2-trifluoroethane | NNNN. Benzyl chloride     |
| M. 2-Butanone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GG. Xylenes, total              | AAA. 1,3,5-Trimethylbenzene   | UUU. 1,2-Dichlorotetrafluoroethane         | oooo. (ye ohexano         |
| N. 1, ,1-Trichloroethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HH, Vinyl acstate               | BBB. 4-Chlorotoluene          | VVV. 4-Ethyltoluene                        | PPPP. Noth Coloboxano     |
| O. Carbon letrachloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I. 2-Chloroeihylvinyl ether     | CCC. tert-Butylbenzene        | WWW. Ethanol                               | aaaa.                     |
| P. Bromodichloromethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | JJ. Dichlorodifluoromethane     | DDD. 1,2,4-Trimethylbenzene   | XXX. Di-isopropyl ether                    | RRRR.                     |
| Q. 1,2-Dichloropropane**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | KK. Trichlorofluoromethane      | EEE. sec-Butylbenzene         | YYY. tert-Butanol                          | SSSS.                     |
| R. cis-1,3-Dichleropropene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | L. Methyl-tert-butyl ether      | FFF. 1,3-Dichlorobenzene      | ZZZ. tert-Butyl alcohol                    | 1111                      |
| S. Trichloroethene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MM. 1,2-Dibromo-3-chloropropane | GGG. p-Isopropyltoluene       | AAAA. Ethyl tert-bulyl ether               | uuuu.                     |
| T. Dibromochloromethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NN. Methyl ethyl ketone         | HHH. 1,4-Dichlorobenzene      | BBBB. tert-Amyl methyl ether               | VVVV.                     |

<sup>\* =</sup> System performance check compounds (SPCC) for RRF; \*\* = Calibration check compounds (CCC) for %RSD.

SDG #: K2522249 LDC #: 135/54

## VALIDATION FINDINGS WORKSHEET Initial Calibration

Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". & N N/A

Did the laboratory perform a 5 point calibration prior to sample analysis?

Y N N/A Y KIN NA

Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Y WIND Y

Did the initial calibration meet the acceptance criteria? Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF?

| I                                                                                                               |                                |            | Т     | Т    | T | Г                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| - 11                                                                                                            | Finding %RSD<br>(∐mit: ≤30.0%) | [5.7 (=15) | 1 8.5 | (5.5 |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|                                                                                                                 | Compound                       | W          | as    | ddd  |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|                                                                                                                 | Standard ID                    | 104/       |       |      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|                                                                                                                 | # Date                         | 4/11/05    |       |      |   | Antimining and the control of the co | The second secon |   | The state of the s |   |   |   |  |   |  |  |   |  |  |   |

SDG #: 12522 LDC #: 135/34

# VALIDATION FINDINGS WORKSHEET Continuing Calibration

Page: 2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". N N/A

Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ? Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF?

Y/N N/A

| -           |                    |          |   | <br> | <br>- |     | <br> | ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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|             | Qualifications     | 4/10/    |   |      |       |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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|             | Associated Samples | 22-12    | ٠ |      |       |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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SDG #: (<2\50549 LDC #:13575A

# VALIDATION FINDINGS WORKSHEET Blanks

ō 2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?

Was a method blank analyzed at least once every 12 hours for each matrix and concentration? Y N/A

Was there contamination in the method blanks? If yes, please see the qualifications below. Blank analysis date: 4/11/05 Y/N N/A

Sample Identification Sample Identification 000 8-1 D Associated Samples: Associated Samples:  $Z_{\mu}$ N W, +WE 1506003--1065050H= M> Blank ID 00 Blank ID Blank analysis date: 4/2/0 Conc. units: //dec Conc. units: 1445 Compound Compound Methylene chloride Methylene chloride Acetone Acetone CROL 2 Δ

All results were qualified using the criteria stated below except those circled.

CROL

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were also qualified as not detected, "U".

### Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Ballfields Parcels at DoDHF Novato, CA

Collection Date: April 6, 2005

LDC Report Date: June 15, 2005

Matrix: Soil

Parameters: Volatiles

Validation Level: NFESC Level III

**Laboratory:** Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2502499

Sample Identification

TO63-R1-SB02-0-0.5 TO63-R1-SB01-0-0.5Dup

#### Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

The review follows the Final Sampling and Analysis Plan for Preliminary Assessment/Site Investigation of Ballfields Parcels at DoDHF Novato, California, (March 23, 2005) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

#### I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

#### II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

#### III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) with the following exceptions:

| Date    | Compound                                         | жпер                 | Accociated Samples             | Flag                                    | A or P |
|---------|--------------------------------------------------|----------------------|--------------------------------|-----------------------------------------|--------|
| 4/11/05 | Bromomethane<br>Cyclohexane<br>Methylcyclohexane | 15.7<br>15.8<br>15.5 | All samples in SDG<br>K2502499 | J (all detects)<br>UJ (all non-detects) | A      |

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

#### IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

#### V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis<br>Date | Compound<br>TIC (RT in minutes) | Concentration | Associated Samples             |
|-----------------|------------------|---------------------------------|---------------|--------------------------------|
| KWG0506003-3    | 4/12/05          | Bromomethane                    | 1.1 ug/Kg     | All samples in SDG<br>K2502499 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

#### VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

#### VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

#### VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

#### IX. Regional Quality Assurance and Quality Control

Not applicable.

#### X. Internal Standards

All internal standard areas and retention times were within QC limits.

#### XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

#### XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

#### XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

#### XIV. System Performance

Raw data were not reviewed for this SDG.

#### XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

#### XVI. Field Duplicates

Samples TO63-R1-SB01-0-0.5Dup and TO63-R1-SB01-0-0.5 (from SDG K2502497) were identified as field duplicates. No volatiles were detected in any of these samples.

#### XVII. Field Blanks

No field blanks were identified in this SDG.

#### Ballfields Parcels at DoDHF Novato, CA Volatiles - Data Qualification Summary - SDG K2502499

| SDG      | Sample                                      | Compound                                         | Flag                                    | A or P | Reason                        |
|----------|---------------------------------------------|--------------------------------------------------|-----------------------------------------|--------|-------------------------------|
| K2502499 | TO63-R1-SB02-0-0.5<br>TO63-R1-SB01-0-0.5Dup | Bromomethane<br>Cyclohexane<br>Methylcyclohexane | J (all detects)<br>UJ (all non-detects) | А      | Initial calibration<br>(%RSD) |

Ballfields Parcels at DoDHF Novato, CA Volatiles - Laboratory Blank Data Qualification Summary - SDG K2502499

No Sample Data Qualified in this SDG

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502499

Date Collected: 04/06/2005 Date Received: 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

T063-R1-SB02-0-0.5

Lab Code:

K2502499-011

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

8260B **Analysis Method:** 

|                             |        |      |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q    | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND     | U    | 4.9 | 0.82 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloromethane               | ND     | U    | 4.9 | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Vinyl Chloride              | ND     | U    | 4.9 | 0.73 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromomethane                | ND     | LN U | 4.9 | 0.94 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroethane                | ND     |      | 4.9 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorofluoromethane      | ND     | U    | 4.9 | 0.86 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorotrifluoroethane    | ND     | U    | 4.9 | 0.87 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Acetone                     | ND     | U    | 20  | 12   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethene          | ND     | U    | 4.9 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl Acetate              | ND     | U    | 4.9 | 0.87 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Disulfide            | ND     | U    | 4.9 | 1.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Diisopropyl Ether           | ND     | U    | 9.7 | 0.40 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylene Chloride          | ND     | U    | 9.7 | 3.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl tert-Butyl Ether     | ND     | U    | 4.9 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,2-Dichloroethene    | ND     | U    | 4.9 | 0.86 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethane          | ND     | U    | 4.9 | 0.91 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Butanone (MEK)            | ND     |      | 20  | 14   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,2-Dichloroethene      | ND     | U    | 4.9 | 0.97 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroform                  | ND     | U    | 4.9 | 0.67 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,1-Trichloroethane (TCA) | ND     | U    | 4.9 | 0.67 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Cyclohexane                 | ND     | UUJ  | 4.9 | 0.79 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Tetrachloride        | ND     | U    | 4.9 | 0.70 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloroethane (EDC)    | ND     | U    | 4.9 | 0.79 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Benzene                     | ND     | U    | 4.9 | 0.93 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichloroethene (TCE)       | ND     | U    | 4.9 | 0.33 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloropropane         | ND     | U    | 4.9 | 0.84 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromodichloromethane        | ND     | U    | 4.9 | 0.62 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylcyclohexane           | ND     | LUU  | 4.9 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Hexanone                  | ND     | U    | 20  | 7.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,3-Dichloropropene     | ND     | U    | 4.9 | 0.89 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Toluene                     | ND     | U    | 4.9 | 0.98 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,3-Dichloropropene   | ND     |      | 4.9 | 0.70 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2-Trichloroethane       | ND     | U    | 4.9 | 0.81 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

Comments:

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502499 Date Collected: 04/06/2005 **Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

T063-R1-SB02-0-0.5

Lab Code:

K2502499-011

**Extraction Method: Analysis Method:** 

Bromochloromethane

1,2,3-Trichlorobenzene

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

KWG0506003

KWG0506003

04/12/05

04/12/05

04/12/05

04/12/05

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 20  | 6.5  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.9 | 0.37 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND U     | 4.9 | 0.70 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 20  | 0.93 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND U     | 4.9 | 0.82 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND U     | 4.9 | 0.67 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND U     | 4.9 | 1.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND U     | 4.9 | 0.81 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND U     | 4.9 | 0.86 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND U     | 4.9 | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND U     | 20  | 0.80 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.9 | 0.87 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.9 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1.4-Dichlorobenzene         | ND U     | 4.9 | 0.96 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.9 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 20  | 1.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 20  | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND U     | 20  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 109  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 104  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 106  | 66-122            | 04/12/05         | Acceptable |  |

4.9

20

1.2

1.1

1

1

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ND U

Form 1A - Organic

Page 2 of 2

SuperSet Reference: RR47211

Analytical Results

Client:

Battelle Memorial Institute

Project:

Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502499

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

T063-R1-SB01-0-0.5 DUP

Lab Code:

K2502499-012

**Extraction Method: Analysis Method:** 

EPA 5035

8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |              |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q     | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U         | 6.0 | 0.89 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloromethane               | ND U         | 6.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Vinyl Chloride              | ND U         | 6.0 | 0.79 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromomethane                | LN U DN      | 6.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroethane                | ND U         | 6.0 | 0.99 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorofluoromethane      | ND U         | 6.0 | 0.93 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichlorotrifluoroethane    | ND U         | 6.0 | 0.94 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Acetone                     | ND U         | 24  | 13   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethene          | ND U         | 6.0 | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl Acetate              | ND U         | 6.0 | 0.94 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Disulfide            | ND U         | 6.0 | 1.9  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Diisopropyl Ether           | ND U         | 12  | 0.43 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylene Chloride          | ND U         | 12  | 3.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methyl tert-Butyl Ether     | ND U         | 6.0 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,2-Dichloroethene    | ND U         | 6.0 | 0.93 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1-Dichloroethane          | ND U         | 6.0 | 0.99 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Butanone (MEK)            | ND U         | 24  | 16   | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,2-Dichloroethene      | ND U         | 6.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chloroform                  | ND U         | 6.0 | 0.73 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,1-Trichloroethane (TCA) | ND U         | 6.0 | 0.73 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Cyclohexane                 | ND U US      | 6.0 | 0.85 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Carbon Tetrachloride        | ND U         | 6.0 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloroethane (EDC)    | ND U         | 6.0 | 0.85 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Benzene                     | ND U         | 6.0 | 1.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Trichloroethene (TCE)       | ND U         | 6.0 | 0.36 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichloropropane         | ND U         | 6.0 | 0.92 | î        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromodichloromethane        | ND U         | 6.0 | 0.68 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
|                             | ND U UJ      | 6.0 | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Methylcyclohexane           | ND U         | 24  | 7.8  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 2-Hexanone                  | ND U         | 6.0 | 0.97 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| cis-1,3-Dichloropropene     |              | 6.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Toluene                     | ND U<br>ND U | 6.0 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| trans-1,3-Dichloropropene   | ND U         | 6.0 | 0.78 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2-Trichloroethane       | 110 0        | 0.0 |      |          |           |          |            |      |

Comments:

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Form 1A - Organic

Page 1 of 2

636

Analytical Results

Client:

Battelle Memorial Institute Novato Ballfields/G486063

Project: Sample Matrix:

Soil

Service Request: K2502499

Date Collected: 04/06/2005 Date Received: 04/07/2005

#### **Volatile Organic Compounds**

Sample Name:

T063-R1-SB01-0-0.5 DUP

Lab Code:

K2502499-012

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 24  | 7.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Tetrachloroethene (PCE)     | ND     |   | 6.0 | 0.40 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Dibromochloromethane        | ND     |   | 6.0 | 0.76 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 24  | 1.0  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Chlorobenzene               | ND     | U | 6.0 | 0.89 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Ethylbenzene                | ND     | U | 6.0 | 0.73 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| m,p-Xylenes                 | ND     | U | 6.0 | 1.9  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| o-Xylene                    | ND     |   | 6.0 | 0.88 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Styrene                     | ND     |   | 6.0 | 0.93 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromoform                   | ND     | U | 6.0 | 0.98 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Isopropylbenzene            | ND     | U | 24  | 0.86 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 6.0 | 0.94 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,3-Dichlorobenzene         | ND     | U | 6.0 | 0.90 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,4-Dichlorobenzene         | ND     | U | 6.0 | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dichlorobenzene         | ND     | U | 6.0 | 0.83 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 24  | 1.1  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 24  | 0.98 | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Naphthalene                 | ND     | U | 24  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| Bromochloromethane          | ND     | U | 6.0 | 1.3  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |
| 1,2,3-Trichlorobenzene      | ND     |   | 24  | 1.2  | 1        | 04/12/05  | 04/12/05 | KWG0506003 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 107  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 102  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

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 $u:\Stealth\Crystal.rpt\Form\Im.rpt$ 

Merged

Form 1A - Organic

SuperSet Reference:

2 of 2 Page

#### LDC #: 13575B1 VALIDATION COMPLETENESS WORKSHEET

SDG #: K2502499

Level III

Laboratory: Columbia Analytical Services

Page: /of/ Reviewer: 2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                                |    | Comments                                            |
|-------|------------------------------------------------|----|-----------------------------------------------------|
| I.    | Technical holding times                        | A  | Sampling dates: 4/6/05                              |
| 11.   | GC/MS Instrument performance check             | A  | ,                                                   |
| III.  | Initial calibration                            | W  | 70850 = 30/15. Spec 5                               |
| IV.   | Continuing calibration                         | A  | 70,PSD € 30/15. Spec 5<br>70,D € 20. Lev = 1/5 )0 V |
| V.    | Blanks                                         | ŹN |                                                     |
| VI.   | Surrogate spikes                               | A  |                                                     |
| VII.  | Matrix spike/Matrix spike duplicates           | N  | direct spirited                                     |
| VIII. | Laboratory control samples                     | 4  | 205/3                                               |
| IX.   | Regional Quality Assurance and Quality Control | N  |                                                     |
| Χ.    | Internal standards                             | A  |                                                     |
| XI.   | Target compound identification                 | N  |                                                     |
| XII.  | Compound quantitation/CRQLs                    | N  |                                                     |
| XIII. | Tentatively identified compounds (TICs)        | N  |                                                     |
| XIV.  | System performance                             | N  |                                                     |
| XV.   | Overall assessment of data                     | A  |                                                     |
| XVI.  | Field duplicates                               | ND | D=2+1063-R1-5B01-0-0.5 (KXSA97)                     |
| XVII. | Field blanks                                   | 2  |                                                     |

Note: A = Acceptable

N = Not provided/applicable SW = See worksheet ND = No compounds detected

R = Rinsate FB = Field blank D = Duplicate TB = Trip blank EB = Equipment blank

#### Validated Samples:

| 1  | TO63-R1-SB02-0-0.5    | 11 | KNG0506003=3 | 21 | 31     |  |
|----|-----------------------|----|--------------|----|--------|--|
| 2  | TO63-R1-SB01-0-0.5Dup | 12 |              | 22 | 32     |  |
| 3  |                       | 13 |              | 23 | <br>33 |  |
| 4  |                       | 14 |              | 24 | 34     |  |
| 5  |                       | 15 |              | 25 | 35     |  |
| 6  |                       | 16 |              | 26 | 36     |  |
| 7  |                       | 17 |              | 27 | 37     |  |
| 8  |                       | 18 |              | 28 | 38     |  |
| 9  |                       | 19 |              | 29 | 39     |  |
| 10 |                       | 20 |              | 30 | 40     |  |

# TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

| Postalistica de la companya de la co<br>Establistica de la companya de la co |                                 |                               |                                           |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------|-------------------------------------------|---------------------------|
| A. Chloromethane*                                                                                                                                                                                                                  | U. 1,1,2-Trichloroethane        | OO. 2,2-Dichloropropane       | III. n-Butylbenzene                       | CCCC.1-Chlorohexare       |
| B. Bromomethane                                                                                                                                                                                                                    | V. Benzene                      | PP. Bromochloromethane        | JJJ. 1,2-Dichlorobenzene                  | DDDD. Isopropyl alcohol   |
| C. Vinyl choride**                                                                                                                                                                                                                 | W. trans-1,3-Dichloropropene    | QQ. 1,1-Dichloropropene       | KKK, 1,2,4-Trichlorobenzene               | EEEE. Acetonitrile        |
| D. Chloroethane                                                                                                                                                                                                                    | X. Bromoform*                   | RR. Dibromomethane            | LLL. Hexachlorobutadiene                  | FFFF, Acrolein            |
| E. Methylene chloride                                                                                                                                                                                                              | Y. 4-Methyl-2-pentanone         | SS. 1,3-Dichloropropane       | MMM. Naphthalene                          | GGGG. Acrylonitrile       |
| F. Acetone                                                                                                                                                                                                                         | Z. 2-Hexanone                   | TT. 1,2-Dibromoethane         | NNN. 1,2,3-Trichlorobenzene               | HHHH. 1,4-Dioxane         |
| G. Carbon disulfide                                                                                                                                                                                                                | AA. Tetrachloroethene           | UU. 1,1,1,2-Tetrachloroethane | OOO. ',3,5-Trichlorobenzene               | IIII. Isobutyl alcohol    |
| H. 1,1-Dichloroethane**                                                                                                                                                                                                            | BB. 1,1,2,2-Tetrachloroethane*  | VV. Isopropylbenzene          | PPP. trans-1,2-Dichloroethene             | JJJJ. Methacrylonitrile   |
| I. 1,1-Dichloroethane*                                                                                                                                                                                                             | CC. Toluene**                   | WW. Bromobenzene              | QQQ. cis-1,2-Dichloroethene               | KKKK. Propionitrile       |
| J. 1,2-Dichloroethene, total                                                                                                                                                                                                       | DD. Chlorobenzene⁺              | XX. 12,3-Trichloropropane     | RRR. m.p-Xylenes                          | LLLL. Methyl ethyl ketone |
| K, Chloroform**                                                                                                                                                                                                                    | EE. Ethylbenzene**              | YY. n-Propylbenzene           | SSS. o.Xylene                             | MMMM. Ethyl ether         |
| L. 1,2-Dichloroethane                                                                                                                                                                                                              | FF. Styrene                     | ZZ. 2-Chlorotoluene           | TTT. 11,2-Trichlore-1,2,2-trifluoroethane | NNNN. Benzy! chloride     |
| M. 2-Butanone                                                                                                                                                                                                                      | GG. Xylenes, total              | AAA. 1,3,5-Trimethylbenzene   | UUU. 1,2-Dichlorotetrafluoroethane        | 0000                      |
| N. 1,1,1-Trichloroethane                                                                                                                                                                                                           | HH. Vinyl acetate               | BBB. 4-Chiorotoluene          | WW. 4-Ethyltoluene                        | pppp.                     |
| O. Carbon letrachloride                                                                                                                                                                                                            | II. 2-Chloroethylvinyl ether    | CCC. tert-Butylbenzene        | WWW Ethanol                               | 9000                      |
| P. Bromodichloromethane                                                                                                                                                                                                            | JJ. Dichlorodifluoromethane     | DDD. 1,2,4-Trimethylbenzene   | XXX. Di-isopropyl ether                   | RRRR.                     |
| Q. 1,2-Dichloropropane**                                                                                                                                                                                                           | KK. Trichlorofluoromethane      | EEE. sec-Butylbenzene         | YYY. tert-Butanol                         | SSSS.                     |
| R. cis-1,3-Dichleropropene                                                                                                                                                                                                         | LL. Methyl-tert-butyl ether     | FFF. 1,3-Dichlorobenzene      | ZZZ. tert-Butyl alcohol                   | TTT.                      |
| S. Trichloroethene                                                                                                                                                                                                                 | MM. 1,2-Dibromo-3-chloropropane | GGG. p-Isopropyltoluene       | AAAA. Ethyl tert-butyl ether              | UUUU.                     |
| T. Diyromochloromethane                                                                                                                                                                                                            | NN. Methyl ethyl ketone         | HHH. 1,4-Dichlorobenzene      | BBBB. tert-Amyl methyl ether              | VVVV.                     |
|                                                                                                                                                                                                                                    |                                 |                               |                                           |                           |

<sup>\* =</sup> System performance check compounds (SPCC) for RRF; \*\* = Calibration check compounds (CCC) for %RSD.

## SDG #: K250249 LDC #: 135/53

## VALIDATION FINDINGS WORKSHEET Initial Calibration

2nd Reviewer: Page: Reviewer:

METHOD: GC/MS VCA (EPA SW 846 Method 8260B)

Pease see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". 

Did the laboratory perform a 5 point calibration prior to sample analysis?

Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?\_ Did the initial calibration meet the acceptance criteria? Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF?

|                                       |                               | T-       | T           |                    | T  | T | T |   | Г | Γ | П | Г | Г |   |  |  |  |  | П                                                                                                              |
|---------------------------------------|-------------------------------|----------|-------------|--------------------|----|---|---|---|---|---|---|---|---|---|--|--|--|--|----------------------------------------------------------------------------------------------------------------|
|                                       | Qualifications                | */ 13/1/ |             |                    |    |   |   |   |   |   |   |   |   |   |  |  |  |  |                                                                                                                |
|                                       | Associated Samples            | W+BA     |             |                    |    |   |   |   |   |   |   |   |   |   |  |  |  |  |                                                                                                                |
| יו פוויכויים בייסט אואם בייסט וויון : | Finding RRF<br>(Limit: >0.05) |          |             |                    |    |   |   |   |   |   |   |   |   |   |  |  |  |  |                                                                                                                |
| 311 Sincina Si =500 /51               | Finding %RSD (Limit: <30.0%)  | (515)13) | 15.8        | 1 5:51             |    |   |   | , |   |   |   |   |   | • |  |  |  |  |                                                                                                                |
|                                       | Compound                      | ΔΔ.      | cxcloboxand | detalloyelo haxame | 7/ |   |   |   |   |   |   |   |   |   |  |  |  |  |                                                                                                                |
|                                       | Standard ID                   | 1942     |             |                    |    |   |   |   |   |   |   |   |   |   |  |  |  |  | SO-FERNÁNDEN KANOZIAL KONTANTANIA MARKA KANOZIO KANOZIA KANOZIA KANOZIA KANOZIA KANOZIA KANOZIA KANOZIA KANOZI |
|                                       | Date                          | 4/11/05  |             |                    |    |   |   |   |   |   |   |   |   |   |  |  |  |  | INTERVENCE PRODUCTION AND AND AND AND AND AND AND AND AND AN                                                   |
|                                       | #                             |          |             | *                  |    |   |   |   |   |   |   |   |   |   |  |  |  |  |                                                                                                                |

## SDG #: KOSCO SARO LDC #: [35/3/B

## VALIDATION FINDINGS WORKSHEET Blanks

Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identifled as "N/A". Y N N/A

Was a method blank associated with every sample in this SDG?

Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Was there contamination in the method blanks? If yes, please see the qualifications below. A/N N/A N N/A

| m                           | Sample Identification |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |         |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |      |
|-----------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|
| -                           | Samp                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |         |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | ,    |
| Associated Samples:         |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |         |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |      |
|                             |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |         |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |      |
| 50/                         | Blank ID              | €-809e50+MJ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |         |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |      |
| Blank analysis date: 4/2/05 | Compound              | AND THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF | Methylene chloride | Acetone | 9 | THE REPORT OF THE PROPERTY OF |  | CROL |

Blank analysis date: Conc. units:

Compound

Methylene chloride

Acetone

Sample Identification Blank ID

Associated Samples:

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Wethylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

### Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Ballfields Parcels at DoDHF Novato, CA

**Collection Date:** 

April 6, 2005

LDC Report Date:

June 15, 2005

Matrix:

Soil

Parameters:

Volatiles

Validation Level:

NFESC Level III & IV

Laboratory:

Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2502505

#### Sample Identification

TO63-R3-SB04-0-0.5

TO63-R3-SB04-2-3\*\*

TO63-R3-SB01-0-0.5

TO63-R3-SB01-4-5

TO63-R3-SB02-0-0.5

TO63-R3-SB03-0-0.5\*\*

TO63-R4-SB03-0-0.5

TO63-R4-SB03-3-4

TO63-R4-SB02-0-0.5

TO63-R4-SB01-0-0.5\*\*

<sup>\*\*</sup>Indicates sample underwent NFESC Level IV review

#### Introduction

This data review covers 10 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

The review follows the Final Sampling and Analysis Plan for Preliminary Assessment/Site Investigation of Ballfields Parcels at DoDHF Novato, California, (March 23, 2005) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent NFESC Level IV review. NFESC Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

\_

#### I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

#### II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

#### III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) with the following exceptions:

| Date    | Compound                                         | %RSD                 | Associated Samples             | Flag                                    | A or P |
|---------|--------------------------------------------------|----------------------|--------------------------------|-----------------------------------------|--------|
| 4/11/05 | Bromomethane<br>Cyclohexane<br>Methylcyclohexane | 15.7<br>15.8<br>15.5 | All samples in SDG<br>K2502505 | J (all detects)<br>UJ (all non-detects) | A      |

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

#### IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

#### V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis<br>Date | Compound<br>TIC (RT in minutes) | Concentration          | Associated Samples             |
|-----------------|------------------|---------------------------------|------------------------|--------------------------------|
| KWG0505901-3    | 4/11/05          | Acetone<br>Bromomethane         | 10 ug/Kg<br>0.80 ug/Kg | All samples in SDG<br>K2502505 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample             | Compound<br>TIC (RT in minutes) | Reported<br>Concentration | Modified Final<br>Concentration |
|--------------------|---------------------------------|---------------------------|---------------------------------|
| TO63-R3-SB04-2-3** | Acetone                         | 45 ug/Kg                  | 50U ug/Kg                       |
| TO63-R3-SB01-0-0.5 | Acetone                         | 45 ug/Kg                  | 45U ug/Kg                       |

#### VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

#### VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

#### VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

#### IX. Regional Quality Assurance and Quality Control

Not applicable.

#### X. Internal Standards

All internal standard areas and retention times were within QC limits.

#### XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which NFESC Level IV review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria.

#### XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which NFESC Level IV review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria.

#### XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

#### XIV. System Performance

The system performance was within validation criteria for samples on which NFESC Level IV review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria.

#### XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

#### XVI. Field Duplicates

No field duplicates were identified in this SDG.

#### XVII. Field Blanks

No field blanks were identified in this SDG.

#### Ballfields Parcels at DoDHF Novato, CA Volatiles - Data Qualification Summary - SDG K2502505

| SDG      | Sample                                                                                                                                                                                                                   | Compound                                         | Flag                                    | A or P | Reason                        |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------|--------|-------------------------------|
| K2502505 | TO63-R3-SB04-0-0.5<br>TO63-R3-SB04-2-3**<br>TO63-R3-SB01-0-0.5<br>TO63-R3-SB01-4-5<br>TO63-R3-SB02-0-0.5<br>TO63-R3-SB03-0-0.5**<br>TO63-R4-SB03-0-0.5<br>TO63-R4-SB03-3-4<br>TO63-R4-SB02-0-0.5<br>TO63-R4-SB01-0-0.5** | Bromomethane<br>Cyclohexane<br>Methylcyclohexane | J (all detects)<br>UJ (all non-detects) | Α      | Initial calibration<br>(%RSD) |

#### Ballfields Parcels at DoDHF Novato, CA Volatiles - Laboratory Blank Data Qualification Summary - SDG K2502505

| SDG      | Sample             | Compound<br>TIC (RT in minutes) | Modified Final<br>Concentration | A or P |
|----------|--------------------|---------------------------------|---------------------------------|--------|
| K2502505 | TO63-R3-SB04-2-3** | Acetone                         | 50U ug/Kg                       | Α      |
| K2502505 | TO63-R3-SB01-0-0.5 | Acetone                         | 45U ug/Kg                       | А      |

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005

**Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R3-SB04-0-0.5

Lab Code:

K2502505-001

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

| Analyte Name                            | Result Q | MRL         | MDL   | Dilution<br>Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Date<br>Extracted | Date<br>Analyzed     | Extraction<br>Lot | Note |
|-----------------------------------------|----------|-------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------------|------|
| Dichlorodifluoromethane                 | ND U     | 4.5         | 0.80  | 1 .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 04/11/05          | 04/11/05             |                   | Note |
| Chloromethane                           | ND U     | 4.5         | 1.2   | î                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Vinyl Chloride                          | ND U     | 4.5         | 0.71  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Bromomethane                            | ND U UJ  | 4.5         | 0.91  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Chloroethane                            | ND U     | 4.5         | 0.89  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Trichlorofluoromethane                  | ND U     | 4.5         | 0.83  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Trichlorotrifluoroethane                | ND U     | 4.5         | 0.84  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             |                   |      |
| Acetone                                 | ND U     | 18          | 12    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          |                      | KWG0505901        |      |
| 1,1-Dichloroethene                      | ND U     | 4.5         | 0.81  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05<br>04/11/05 | KWG0505901        |      |
| Methyl Acetate                          | ND U     | 4.5         | 0.84  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                      | KWG0505901        |      |
| Carbon Disulfide                        | ND U     | 4.5         | 1.7   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Diisopropyl Ether                       | ND U     | <b>8</b> .9 | 0.39  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Methylene Chloride                      | ND U     |             |       | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Methyl tert-Butyl Ether                 | ND U     | 8.9         | 2.9   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| trans-1,2-Dichloroethene                | ND U     | 4.5         | 0.74  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| 1,1-Dichloroethane                      |          | 4.5         | 0.83  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
|                                         | ND U     | 4.5         | 0.89  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| 2-Butanone (MEK) cis-1,2-Dichloroethene | ND U     | 18          | 14    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
|                                         | ND U     | 4.5         | 0.94  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Chloroform                              | ND U     | 4.5         | 0.65  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| 1,1,1-Trichloroethane (TCA)             | ND U     | 4.5         | 0.65  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Cyclohexane                             | LN U DN  | 4.5         | 0.76  | -1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Carbon Tetrachloride                    | ND U     | 4.5         | 0.68  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        | -    |
| 1,2-Dichloroethane (EDC)                | ND U     | 4.5         | 0.76  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Benzene                                 | ND U     | 4.5         | 0.90  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Prichloroethene (TCE)                   | ND U     | 4.5         | 0.32  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| 1,2-Dichloropropane                     | ND U     | 4.5         | 0.82  | Î                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Bromodichloromethane                    | ND U     | 4.5         | 0.60  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| Methylcyclohexane                       | ND U UJ  | 4.5         | 0.81  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          |                      |                   |      |
| -Hexanone                               | ND U     | 18          | 6.9   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |
| ris-1,3-Dichloropropene                 | ND U     | 4.5         | 0.86  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          |                      | KWG0505901        |      |
| oluene                                  | ND U     | 4.5         | 0.95  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                      | KWG0505901        |      |
| rans-1,3-Dichloropropene                | ND U     | 4.5<br>4.5  | 0.95  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          |                      | KWG0505901        |      |
| ,1,2-Trichloroethane                    | ND U     | 4.5         | 0.68  | The same of the sa | 04/11/05          |                      | KWG0505901        |      |
|                                         | 110 0    | +.5         | U. /8 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/11/05          | 04/11/05             | KWG0505901        |      |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R3-SB04-0-0.5

Lab Code:

K2502505-001

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 18  | 6.3  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.5 | 0.36 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 4.5 | 0.68 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 18  | 0.90 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 4.5 | 0.80 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 4.5 | 0.65 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 4.5 | 1.7  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 4.5 | 0.78 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Styrene                     | ND U     | 4.5 | 0.83 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 4.5 | 0.88 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 18  | 0.77 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.5 | 0.84 | . 1      | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.5 | 0.81 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 4.5 | 0.93 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.5 | 0.74 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 18  | 0.97 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 18  | 0.88 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 18  | 1.1  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 4.5 | 1.2  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 18  | 1.1  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 107  | 70-119            | 04/11/05         | Acceptable |  |
| Toluene-d8           | 111  | 72-121            | 04/11/05         | Acceptable |  |
| 4-Bromofluorobenzene | 112  | 66-122            | 04/11/05         | Acceptable |  |

Comments:

Page 2 of 2 Printed: 04/19/2005 12:43:41 Form 1A - Organic DD 477100

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code: TO63-R3-SB04-2-3 K2502505-002

Extraction Method: Analysis Method:

EPA 5035 8260B Units: ug/Kg Basis: Dry

Level: Low

|                             |          | MDI  | MAT  | Dilution | Date      | Date     | Extraction | Note |
|-----------------------------|----------|------|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL  | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U     | 13   | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Chloromethane               | ND U     | 13   | 2.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Vinyl Chloride              | ND U     | 13   | 1.6  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Bromomethane                | ND U UJ  | 13   | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Chloroethane                | ND U     | 13   | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Trichlorofluoromethane      | ND U     | 13   | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Trichlorotrifluoroethane    | ND U     | 13   | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Acetone                     | 45 J 50V | - 50 | 25   | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,1-Dichloroethene          | ND U     | 13   | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Methyl Acetate              | ND U     | 13   | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Carbon Disulfide            | ND U     | 13   | 3.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Diisopropyl Ether           | ND U     | 25   | 0.85 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Methylene Chloride          | ND U     | 25   | 6.2  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether     | ND U     | 13   | 1.7  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| trans-1,2-Dichloroethene    | ND U     | 13   | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,1-Dichloroethane          | ND U     | 13   | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 2-Butanone (MEK)            | ND U     | 50   | 30   | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| cis-1,2-Dichloroethene      | ND U     | 13   | 2.1  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Chloroform                  | ND U     | 13   | 1.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 13   | 1.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Cyclohexane                 | LN U DN  | 13   | 1.7  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Carbon Tetrachloride        | ND U     | 13   | 1.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 13   | 1.7  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Benzene                     | ND U     | 13   | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Trichloroethene (TCE)       | ND U     | 13   | 0.70 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dichloropropane         | ND U     | 13   | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Bromodichloromethane        | ND U     | 13   | 1.4  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Methylcyclohexane           | ND U UJ  | 13   | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 2-Hexanone                  | ND U     | 50   | 16   | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene     | ND U     | 13   | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Toluene                     | ND U     | 13   | 2.1  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| trans-1,3-Dichloropropene   | ND U     | 13   | 1.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,1,2-Trichloroethane       | ND U     | 13   | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
|                             |          |      |      |          |           |          |            |      |

Comments: \_\_\_\_\_

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Service Request: K2502505

Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R3-SB04-2-3 K2502505-002

Extraction Method: EPA 5035

**Analysis Method:** 

8260B

Units: ug/Kg Basis: Dry Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 50  | 14   | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 13  | 0.77 | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 13  | 1.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 50  | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 13  | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 13  | 1.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 13  | 3.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 13  | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Styrene                     | ND U     | 13  | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 13  | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 50  | 1.7  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 13  | 1.9  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 13  | 1.8  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 13  | 2.1  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 13  | 1.7  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 50  | 2.2  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 50  | 2.0  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 50  | 2.2  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 13  | 2.5  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 50  | 2.3  | 1        | 04/11/05  | 04/11/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 108  | 70-119            | 04/11/05         | Acceptable |  |
| Toluene-d8           | 108  | 72-121            | 04/11/05         | Acceptable |  |
| 4-Bromofluorobenzene | 110  | 66-122            | 04/11/05         | Acceptable |  |

Comments:

Printed: 04/19/2005 12:43:44

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R3-SB01-0-0.5

Lab Code:

K2502505-003

**Extraction Method:** 

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

**Analysis Method:** 8260B

| Analyte Name                | Result Q | MRL    | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note              |
|-----------------------------|----------|--------|------|--------------------|-------------------|------------------|-------------------|-------------------|
| Dichlorodifluoromethane     | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Chloromethane               | ND U     | 8.9    | 1.8  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Vinyl Chloride              | ND U     | 8.9    | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Bromomethane                | ND U L   | 1J 8.9 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Chloroethane                | ND U     | 8.9    | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Trichlorofluoromethane      | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Trichlorotrifluoroethane    | ND U     | 8.9    | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Acetone                     | 45       | U 36   | 18   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 1,1-Dichloroethene          | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Methyl Acetate              | ND U     | 8.9    | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Carbon Disulfide            | ND U     | 8.9    | 2.7  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Diisopropyl Ether           | ND U     | 18     | 0.61 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Methylene Chloride          | ND U     | 18     | 4.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Methyl tert-Butyl Ether     | ND U     | 8.9    | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| trans-1,2-Dichloroethene    | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 1,1-Dichloroethane          | ND U     | 8.9    | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 2-Butanone (MEK)            | ND U     | 36     | 22   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| cis-1,2-Dichloroethene      | ND U     | 8.9    | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Chloroform                  | ND U     | 8.9    | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 1,1,1-Trichloroethane (TCA) | ND U     | 8.9    | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Cyclohexane                 | ND U     | 8.9    | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        | <del>,,,,</del> , |
| Carbon Tetrachloride        | ND U     | 8.9    | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 1,2-Dichloroethane (EDC)    | ND U     | 8.9    | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Benzene                     | ND U     | 8.9    | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Trichloroethene (TCE)       | ND U     | 8.9    | 0.50 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 1,2-Dichloropropane         | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Bromodichloromethane        | ND U     | 8.9    | 0.94 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Methylcyclohexane           | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 2-Hexanone                  | ND U     | 36     | 11   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| cis-1,3-Dichloropropene     | ND U     | 8.9    | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| Toluene                     | ND U     | 8.9    | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| trans-1,3-Dichloropropene   | ND U     | 8.9    | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |
| 1,1,2-Trichloroethane       | ND U     | 8.9    | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                   |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R3-SB01-0-0.5

Lab Code:

K2502505-003

**Extraction Method: Analysis Method:** 

EPA 5035

8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 36  | 9.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 8.9 | 0.55 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 8.9 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 36  | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 8.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 8.9 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 8.9 | 2.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 8.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND U     | 8.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 8.9 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 36  | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 8.9 | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 8.9 | 1.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 8.9 | 1.5  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 8.9 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 36  | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 36  | 1.4  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 36  | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 8.9 | 1.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 36  | 1.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 106  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 111  | 66-122            | 04/12/05         | Acceptable |

Comments:

Page 2 of 2 Form 1A - Organic Printed: 04/19/2005 12:43:47

Analytical Results

Client: Project:

Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005

**Date Received:** 04/07/2005

**Volatile Organic Compounds** 

Sample Name: Lab Code:

TO63-R3-SB01-4-5 K2502505-004

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

| Analyte Name         Result Q         MRL         MDL         Factor         Extracted         Analyzed         Lot         N           Dichlorodifluoromethane         ND U         4.7         0.80         1         04/11/05         04/12/05         KWG0505901           Chloromethane         ND U         4.7         1.2         1         04/11/05         04/12/05         KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u>Note</u>   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Dictional distribution of the second s |               |
| Chloromethane ND U 4.7 1.2 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |
| Cinordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |
| Vinyl Chloride ND U 4.7 0.71 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |
| Bromomethane ND U UJ 4.7 0.92 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |
| Chloroethane ND U 4.7 0.90 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |
| Trichlorofluoromethane ND U 4.7 0.84 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |
| Trichlorotrifluoroethane ND U 4.7 0.85 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |
| Acetone ND U 19 12 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |
| 1,1-Dichloroethene ND U 4.7 0.82 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |
| Methyl Acetate ND U 4.7 0.85 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ************* |
| Carbon Disulfide ND U 4.7 1.8 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |
| Diisopropyl Ether ND U 9.4 0.39 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |
| Methylene Chloride ND U 9.4 2.9 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |
| Methyl tert-Butyl Ether ND U 4.7 0.75 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
| trans-1,2-Dichloroethene ND U 4.7 0.84 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |
| 1,1-Dichloroethane ND U 4.7 0.90 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |
| 2-Butanone (MEK) ND U 19 14 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |
| cis-1,2-Dichloroethene ND U 4.7 0.95 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |
| Chloroform ND U 4.7 0.66 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |
| 1,1,1-Trichloroethane (TCA) ND U 4.7 0.66 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |
| Cyclohexane ND U UJ 4.7 0.77 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |
| Carbon Tetrachloride ND U 4.7 0.69 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |
| 1,2-Dichloroethane (EDC) ND U 4.7 0.77 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |
| Benzene ND U 4.7 0.91 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
| Trichloroethene (TCE) ND U 4.7 0.32 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |
| 1,2-Dichloropropane ND U 4.7 0.83 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
| Bromodichloromethane ND U 4.7 0.61 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |
| Methylcyclohexane ND U UJ 4.7 0.82 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |
| 2-Hexanone ND U 19 7.0 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |
| cis-1,3-Dichloropropene ND U 4.7 0.87 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
| Toluene ND U 4.7 0.96 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
| trans-1,3-Dichloropropene ND U 4.7 0.69 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |
| 1,1,2-Trichloroethane ND U 4.7 0.79 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005

Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R3-SB01-4-5 K2502505-004

**Extraction Method: Analysis Method:** 

EPA 5035

8260B

Units: ug/Kg Basis: Dry

Level: Low

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note                                    |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|-----------------------------------------|
| 4-Methyl-2-pentanone (MIBK) | ND U     | 19  | 6.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Tetrachloroethene (PCE)     | ND U     | 4.7 | 0.36 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Dibromochloromethane        | ND U     | 4.7 | 0.69 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,2-Dibromoethane (EDB)     | ND U     | 19  | 0.91 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Chlorobenzene               | ND U     | 4.7 | 0.80 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Ethylbenzene                | ND U     | 4.7 | 0.66 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| m,p-Xylenes                 | ND U     | 4.7 | 1.8  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        | *************************************** |
| o-Xylene                    | ND U     | 4.7 | 0.79 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Styrene                     | ND U     | 4.7 | 0.84 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Bromoform                   | ND U     | 4.7 | 0.88 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Isopropylbenzene            | ND U     | 19  | 0.78 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.7 | 0.85 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,3-Dichlorobenzene         | ND U     | 4.7 | 0.82 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,4-Dichlorobenzene         | ND U     | 4.7 | 0.94 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,2-Dichlorobenzene         | ND U     | 4.7 | 0.75 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,2-Dibromo-3-chloropropane | ND U     | 19  | 0.98 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1,2,4-Trichlorobenzene      | ND U     | 19  | 0.88 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Naphthalene                 | ND U     | 19  | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| Bromochloromethane          | ND U     | 4.7 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |
| 1.2.3-Trichlorobenzene      | ND U     | 19  | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |                                         |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 105  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 109  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 105  | 66-122            | 04/12/05         | Acceptable |  |

Form 1A - Organic

Comments:

Printed: 04/19/2005 12:43:50

Page 2 of 2

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

**Date Collected:** 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code: TO63-R3-SB02-0-0.5

**Extraction Method:** 

K2502505-005

Analysis Method:

EPA 5035 8260B Units: ug/Kg
Basis: Dry
Level: Low

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Dichlorodifluoromethane     | ND U     | 4.8 | 0.80 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloromethane               | ND U     | 4.8 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Vinyl Chloride              | ND U     | 4.8 | 0.71 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromomethane                | ND U UJ  | 4.8 | 0.91 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroethane                | ND U     | 4.8 | 0.89 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorofluoromethane      | ND U     | 4.8 | 0.83 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorotrifluoroethane    | ND U     | 4.8 | 0.84 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Acetone                     | ND U     | 19  | 12   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethene          | ND U     | 4.8 | 0.81 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl Acetate              | ND U     | 4.8 | 0.84 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Disulfide            | ND U     | 4.8 | 1.8  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Diisopropyl Ether           | ND U     | 9.5 | 0.39 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylene Chloride          | ND U     | 9.5 | 2.9  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl tert-Butyl Ether     | ND U     | 4.8 | 0.74 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,2-Dichloroethene    | ND U     | 4.8 | 0.83 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethane          | ND U     | 4.8 | 0.89 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Butanone (MEK)            | ND U     | 19  | 14   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,2-Dichloroethene      | ND U     | 4.8 | 0.95 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroform                  | ND U     | 4.8 | 0.65 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 4.8 | 0.65 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Cyclohexane                 | ND U UJ  | 4.8 | 0.77 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Tetrachloride        | ND U     | 4.8 | 0.69 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 4.8 | 0.77 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Benzene                     | ND U     | 4.8 | 0.90 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichloroethene (TCE)       | ND U     | 4.8 | 0.32 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloropropane         | ND U     | 4.8 | 0.82 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromodichloromethane        | ND U     | 4.8 | 0.61 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylcyclohexane           | ND U UJ  | 4.8 | 0.81 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Hexanone                  | ND U     | 19  | 7.0  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,3-Dichloropropene     | ND U     | 4.8 | 0.87 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Toluene                     | ND U     | 4.8 | 0.96 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,3-Dichloropropene   | ND U     | 4.8 | 0.69 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,2-Trichloroethane       | ND U     | 4.8 | 0.79 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |

Comments:

16/19/01

Page

1 of 2

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Sample Matrix: Soil

Service Request: K2502505

Date Collected: 04/06/2005

Date Received: 04/07/2005

Units: ug/Kg

### **Volatile Organic Compounds**

**Sample Name:** TO63-R3-SB02-0-0.5 **K2502505-005** 

8260B

Extraction Method: Analysis Method:

 K2502505-005
 Basis:
 Dry

 EPA 5035
 Level:
 Low

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 19  | 6.3  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND     | U | 4.8 | 0.36 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND     | U | 4.8 | 0.69 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 19  | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND     | U | 4.8 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND     | U | 4.8 | 0.65 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND     | U | 4.8 | 1.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND     | U | 4.8 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND     | U | 4.8 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND     | U | 4.8 | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND     | U | 19  | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 4.8 | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND     | U | 4.8 | 0.81 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND     | U | 4.8 | 0.94 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND     | U | 4.8 | 0.74 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 19  | 0.97 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 19  | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND     | U | 19  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND     | U | 4.8 | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 19  | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 105  | 66-122            | 04/12/05         | Acceptable |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505 Date Collected: 04/06/2005

Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R3-SB03-0-0.5

Lab Code:

K2502505-006

**Extraction Method: Analysis Method:** 

EPA 5035 8260B

Units: ug/Kg Basis: Dry

Level: Low

| Analyte Name                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Dichlorodifluoromethane     | ND U     | 4.6 | 0.84 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloromethane               | ND U     | 4.6 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Vinyl Chloride              | ND U     | 4.6 | 0.74 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromomethane                | ND U UJ  | 4.6 | 0.96 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroethane                | ND U     | 4.6 | 0.94 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorofluoromethane      | ND U     | 4.6 | 0.88 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorotrifluoroethane    | ND U     | 4.6 | 0.89 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Acetone                     | ND U     | 19  | 12   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethene          | ND U     | 4.6 | 0.85 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl Acetate              | ND U     | 4.6 | 0.89 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Disulfide            | ND U     | 4.6 | 1.8  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Diisopropyl Ether           | ND U     | 9.2 | 0.41 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylene Chloride          | ND U     | 9.2 | 3.0  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl tert-Butyl Ether     | ND U     | 4.6 | 0.78 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,2-Dichloroethene    | ND U     | 4.6 | 0.88 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethane          | ND U     | 4.6 | 0.94 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Butanone (MEK)            | ND U     | 19  | 15   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,2-Dichloroethene      | ND U     | 4.6 | 1.0  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroform                  | ND U     | 4.6 | 0.69 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 4.6 | 0.69 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Cyclohexane                 | LN U DN  | 4.6 | 0.80 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Tetrachloride        | ND U     | 4.6 | 0.72 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 4.6 | 0.80 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Benzene                     | ND U     | 4.6 | 0.95 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichloroethene (TCE)       | ND U     | 4.6 | 0.34 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloropropane         | ND U     | 4.6 | 0.86 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromodichloromethane        | ND U     | 4.6 | 0.64 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylcyclohexane           | ND U UJ  | 4.6 | 0.85 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Hexanone                  | ND U     | 19  | 7.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,3-Dichloropropene     | ND U     | 4.6 | 0.91 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Toluene                     | ND U     | 4.6 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,3-Dichloropropene   | ND U     | 4.6 | 0.72 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,2-Trichloroethane       | ND U     | 4.6 | 0.83 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R3-SB03-0-0.5

Lab Code:

K2502505-006

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

**Extraction Method:** 8260B **Analysis Method:** 

|                             |          |      |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|------|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL  | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 19   | 6.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.6  | 0.37 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 4.6  | 0.72 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 19   | 0.95 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 4.6  | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 4.6  | 0.69 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 4.6  | 1.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 4.6  | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND U     | 4.6  | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 4.6  | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | . 19 | 0.82 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.6  | 0.89 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.6  | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 4.6  | 0.98 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.6  | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 19   | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND U     | 19   | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 19   | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 4.6  | 1.2  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 19   | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |
|----------------------|------|-------------------|------------------|------------|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |
| 4-Bromofluorobenzene | 104  | 66-122            | 04/12/05         | Acceptable |

Elia los Comments:

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505 Date Collected: 04/06/2005

Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB03-0-0.5

Lab Code:

K2502505-007

**Extraction Method:** 

EPA 5035

**Analysis Method:** 

8260B

Units: ug/Kg Basis: Dry Level: Low

Ti-dun adiam

|                             |        |      |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q    | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND     | U    | 4.8 | 0.76 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloromethane               | ND     | U    | 4.8 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Vinyl Chloride              | ND     | U    | 4.8 | 0.67 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromomethane                | ND     | U UJ | 4.8 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroethane                | ND     |      | 4.8 | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorofluoromethane      | ND     | U    | 4.8 | 0.79 | 1.       | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorotrifluoroethane    | ND     | U    | 4.8 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Acetone                     | ND     | U    | 19  | 11   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethene          | ND     | U    | 4.8 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl Acetate              | ND     | U    | 4.8 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Disulfide            | ND     | U    | 4.8 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Diisopropyl Ether           | ND     | U    | 9.5 | 0.37 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylene Chloride          | ND     | U    | 9.5 | 2.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether     | ND     | U    | 4.8 | 0.71 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,2-Dichloroethene    | ND     | U    | 4.8 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethane          | ND     | U    | 4.8 | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Butanone (MEK)            | ND     | U    | 19  | 13   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,2-Dichloroethene      | ND     | U    | 4.8 | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroform                  | ND     | U    | 4.8 | 0.62 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,1-Trichloroethane (TCA) | ND     |      | 4.8 | 0.62 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cyclohexane                 | ND     | U UJ | 4.8 | 0.73 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Tetrachloride        | ND     | U    | 4.8 | 0.65 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloroethane (EDC)    | ND     | U    | 4.8 | 0.73 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Benzene                     | ND     | U    | 4.8 | 0.86 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichloroethene (TCE)       | ND     |      | 4.8 | 0.31 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloropropane         | ND     | U    | 4.8 | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromodichloromethane        | ND     |      | 4.8 | 0.58 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylcyclohexane           | ND     |      | 4.8 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Hexanone                  | ND     |      | 19  | 6.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene     | ND     | U    | 4.8 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Toluene                     | ND     |      | 4.8 | 0.91 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,3-Dichloropropene   | ND     |      | 4.8 | 0.65 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2-Trichloroethane       | ND     | U    | 4.8 | 0.75 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505 Date Collected: 04/06/2005

**Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB03-0-0.5

Lab Code:

K2502505-007

**Extraction Method: Analysis Method:** 

EPA 5035

8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND U     | 19  | 6.0  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND U     | 4.8 | 0.34 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND U     | 4.8 | 0.65 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 19  | 0.86 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND U     | 4.8 | 0.76 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND U     | 4.8 | 0.62 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND U     | 4.8 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND U     | 4.8 | 0.75 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND U     | 4.8 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND U     | 4.8 | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND U     | 19  | 0.74 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 4.8 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND U     | 4.8 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND U     | 4.8 | 0.89 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND U     | 4.8 | 0.71 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND U     | 19  | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1.2.4-Trichlorobenzene      | ND U     | 19  | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND U     | 19  | 0.97 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND U     | 4.8 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND U     | 19  | 0.98 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 106  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 103  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

fc/10/01

Analytical Results

Battelle Memorial Institute Client: Novato Ballfields/G486063 Project:

Soil Sample Matrix:

Service Request: K2502505 Date Collected: 04/06/2005 Date Received: 04/07/2005

### **Volatile Organic Compounds**

TO63-R4-SB03-3-4 Sample Name: Lab Code: K2502505-008

EPA 5035 **Extraction Method:** 8260B **Analysis Method:** 

Units: ug/Kg Basis: Dry Level: Low

| Analysta Nama                        | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|--------------------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Analyte Name Dichlorodifluoromethane | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloromethane                        | ND U     | 9.0 | 1.8  | î                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Vinyl Chloride                       | ND U     | 9.0 | 1.2  | ĺ                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromomethane                         | ND U UJ  | 9.0 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroethane                         | ND U     | 9.0 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorofluoromethane               | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichlorotrifluoroethane             | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Acetone                              | ND U     | 36  | 18   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethene                   | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl Acetate                       | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Disulfide                     | ND U     | 9.0 | 2.7  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Diisopropyl Ether                    | ND U     | 18  | 0.62 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        | ***  |
| Methylene Chloride                   | ND U     | 18  | 4.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methyl tert-Butyl Ether              | ND U     | 9.0 | 1.2  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,2-Dichloroethene             | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1-Dichloroethane                   | ND U     | 9.0 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Butanone (MEK)                     | ND U     | 36  | 22   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,2-Dichloroethene               | ND U     | 9.0 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chloroform                           | ND U     | 9.0 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,1-Trichloroethane (TCA)          | ND U     | 9.0 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Cyclohexane                          | ND U UJ  | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Carbon Tetrachloride                 | ND U     | 9.0 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloroethane (EDC)             | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Benzene                              | ND U     | 9.0 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Trichloroethene (TCE)                | ND U     | 9.0 | 0.51 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichloropropane                  | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromodichloromethane                 | ND U     | 9.0 | 0.96 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Methylcyclohexane                    | ND U NJ  | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 2-Hexanone                           | ND U     | 36  | 11   | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| cis-1,3-Dichloropropene              | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Toluene                              | ND U     | 9.0 | 1.6  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| trans-1,3-Dichloropropene            | ND U     | 9.0 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,2-Trichloroethane                | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |

Comments:

Form 1A - Organic Page 1 of 2 Printed: 04/19/2005 12:44:03

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB03-3-4

Lab Code:

K2502505-008

EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

Extraction Method: 8260B **Analysis Method:** 

| Analyta Nama                | Result Q | MRL | MDL  | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Extraction<br>Lot | Note |
|-----------------------------|----------|-----|------|--------------------|-------------------|------------------|-------------------|------|
| Analyte Name                | ND U     | 36  | 9.9  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 4-Methyl-2-pentanone (MIBK) |          |     |      | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Tetrachloroethene (PCE)     | ND U     | 9.0 | 0.56 | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Dibromochloromethane        | ND U     | 9.0 | 1.1  | 1                  | 04/11/03          |                  |                   |      |
| 1,2-Dibromoethane (EDB)     | ND U     | 36  | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Chlorobenzene               | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Ethylbenzene                | ND U     | 9.0 | 1.1  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| m,p-Xylenes                 | ND U     | 9.0 | 2.7  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| o-Xylene                    | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Styrene                     | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromoform                   | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Isopropylbenzene            | ND U     | 36  | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,1,2,2-Tetrachloroethane   | ND U     | 9.0 | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,3-Dichlorobenzene         | ND U     | 9.0 | 1.3  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,4-Dichlorobenzene         | ND U     | 9.0 | 1.5  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2-Dichlorobenzene         | ND U     | 9.0 | 1.2  | ī                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1.2-Dibromo-3-chloropropane | ND U     | 36  | 1.6  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1.2.4-Trichlorobenzene      | ND U     | 36  | 1.4  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Naphthalene                 | ND U     | 36  | 1.6  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| Bromochloromethane          | ND U     | 9.0 | 1.8  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |
| 1,2,3-Trichlorobenzene      | ND U     | 36  | 1.7  | 1                  | 04/11/05          | 04/12/05         | KWG0505901        |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 106  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 103  | 66-122            | 04/12/05         | Acceptable |  |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB02-0-0.5

Lab Code:

K2502505-009

**Extraction Method:** Analysis Method:

EPA 5035

8260B

Units: ug/Kg Basis: Dry

Level: Low

|                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Dichlorodifluoromethane     | ND U     | 4.6 | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloromethane               | ND U     | 4.6 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Vinyl Chloride              | ND U     | 4.6 | 0.69 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromomethane                | ND U UJ  | 4.6 | 0.89 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroethane                | ND U     | 4.6 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorofluoromethane      | ND U     | 4.6 | 0.82 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorotrifluoroethane    | ND U     | 4.6 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Acetone                     | ND U     | 19  | 12   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethene          | ND U     | 4.6 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl Acetate              | ND U     | 4.6 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Disulfide            | ND U     | 4.6 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Diisopropyl Ether           | ND U     | 9.1 | 0.38 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylene Chloride          | ND U     | 9.1 | 2.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether     | ND U     | 4.6 | 0.73 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,2-Dichloroethene    | ND U     | 4.6 | 0.82 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethane          | ND U     | 4.6 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Butanone (MEK)            | ND U     | 19  | 14   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,2-Dichloroethene      | ND U     | 4.6 | 0.93 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroform                  | ND U     | 4.6 | 0.64 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,1-Trichloroethane (TCA) | ND U     | 4.6 | 0.64 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cyclohexane                 | ND U UJ  | 4.6 | 0.75 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Tetrachloride        | ND U     | 4.6 | 0.67 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloroethane (EDC)    | ND U     | 4.6 | 0.75 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Benzene                     | ND U     | 4.6 | 0.88 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichloroethene (TCE)       | ND U     | 4.6 | 0.32 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloropropane         | ND U     | 4.6 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromodichloromethane        | ND U     | 4.6 | 0.59 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylcyclohexane           | ND U UJ  | 4.6 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Hexanone                  | ND U     | 19  | 6.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene     | ND U     | 4.6 | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Toluene                     | ND U     | 4.6 | 0.94 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| trans-1,3-Dichloropropene   | ND U     | 4.6 | 0.67 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2-Trichloroethane       | ND U     | 4.6 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505 Date Collected: 04/06/2005

**Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name: Lab Code:

TO63-R4-SB02-0-0.5

**Extraction Method: Analysis Method:** 

EPA 5035

K2502505-009

8260B

Units: ug/Kg Basis: Dry

Level: Low

Dilution Date Date Extraction **Analyte Name** MRL Result Q **MDL Factor** Extracted Analyzed Lot Note 4-Methyl-2-pentanone (MIBK) ND U 19 6.2 1 04/11/05 04/12/05 KWG0505901 Tetrachloroethene (PCE) ND U 4.6 0.35 1 04/11/05 04/12/05 KWG0505901 Dibromochloromethane ND U 4.6 0.67 1 04/11/05 04/12/05 KWG0505901 1,2-Dibromoethane (EDB) 19 1 ND U 0.88 04/11/05 04/12/05 KWG0505901 Chlorobenzene ND U 4.6 0.78 1 KWG0505901 04/11/05 04/12/05 Ethylbenzene KWG0505901 ND U 4.6 0.64 1 04/11/05 04/12/05 m,p-Xylenes ND U 4.6 1.7 1 KWG0505901 04/11/05 04/12/05 o-Xylene ND U 4.6 0.77 1 04/11/05 04/12/05 KWG0505901 Styrene ND U 4.6 0.82 KWG0505901 1 04/11/05 04/12/05 Bromoform ND U 1 4.6 0.86 04/11/05 04/12/05 KWG0505901 Isopropylbenzene ND U 04/11/05 19 0.76 1 04/12/05 KWG0505901 1,1,2,2-Tetrachloroethane KWG0505901 ND U 4.6 0.83 1 04/11/05 04/12/05 1,3-Dichlorobenzene ND U 4.6 0.79 1 KWG0505901 04/11/05 04/12/05 1,4-Dichlorobenzene ND U 4.6 0.92 1 04/11/05 KWG0505901 04/12/05 1,2-Dichlorobenzene ND U 4.6 0.73 1 KWG0505901 04/11/05 04/12/05 1,2-Dibromo-3-chloropropane 19 ND U 0.95 1 04/11/05 04/12/05 KWG0505901 1,2,4-Trichlorobenzene ND U 19 0.86 1 04/11/05 04/12/05 KWG0505901 Naphthalene ND U 0.99 19 1 04/11/05 04/12/05 KWG0505901 Bromochloromethane ND U 4.6 1.1 1 04/11/05 04/12/05 KWG0505901 1,2,3-Trichlorobenzene ND U 19 1.0 1 04/11/05 KWG0505901 04/12/05

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 108  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 108  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 111  | 66-122            | 04/12/05         | Acceptable |  |

Comments:

Printed: 04/19/2005 12:44:06

u-\Stealth\Crvstal mt\Form1m mt

Merged

Form 1A - Organic 040

Page 2 of 2

### Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005

Date Received: 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB01-0-0.5

Lab Code:

K2502505-010

Extraction Method: Analysis Method:

EPA 5035 8260B Units: ug/Kg Basis: Dry

Level: Low

| Analyte Name         Result Q         MRL         MDL         Factor         Extracted         Analyzed         Lot         Note           Dichlorodifluoromethane         ND U         4.3         0.76         1         04/11/05         04/12/05         KWG05059901           Chloromethane         ND U         4.3         1.1         1         04/11/05         04/12/05         KWG0505901           Bromomethane         ND U         4.3         0.87         1         04/11/05         04/12/05         KWG0505901           Chloroethane         ND U         4.3         0.87         1         04/11/05         04/12/05         KWG0505901           Trichlorofluoromethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           Trichlorotrifluoroethane         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Trichlorotrifluoroethane         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Acetone         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Methyl Acetate         ND U <th></th> <th></th> <th></th> <th></th> <th>Dilution</th> <th>Date</th> <th>Date</th> <th>Extraction</th> <th></th>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                             |          |     |      | Dilution | Date      | Date     | Extraction |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------|-----|------|----------|-----------|----------|------------|------|
| Chloromethane ND U 4.3 0.68 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.88 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.88 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.85 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.85 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.89 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.89 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.89 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.80 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.80 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.80 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.77 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.77 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.80 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.30 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.30 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.30 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.71 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.71 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.79 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.79 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.85 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901 ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901 ND U 4 | Analyte Name                | Result Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| Vinyl Chloride         ND U         4.3         0.68         1         04/11/05         04/12/05         KWG0505901           Bromomethane         ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dichlorodifluoromethane     | ND U     | 4.3 | 0.76 | 1        | 04/11/05  | 04/12/05 |            |      |
| ND U   1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Chloromethane               | ND U     | 4.3 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chloroethane         ND         U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           Trichloroffluoromethane         ND         U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           Trichlorotrifluoroethane         ND         U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Acetone         ND         U         18         11         1         04/11/05         04/12/05         KWG05059901           J-Dichloroethene         ND         U         4.3         0.77         1         04/11/05         04/12/05         KWG05059901           Methyl Acetate         ND         U         4.3         0.80         1         04/11/05         04/12/05         KWG05059901           Methyl Acetate         ND         U         4.3         0.80         1         04/11/05         04/12/05         KWG05059901           Methyl Acetate         ND         U         4.3         0.80         1         04/11/05         04/12/05         KWG05059901           Methyl Acetate         ND         U         4.3         0.37         1         04/11/05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Vinyl Chloride              | ND U     | 4.3 | 0.68 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorofluoromethane         ND U         4.3         0.79         1         04/11/05         KWG0505901           Trichlorotrifluoroethane         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Acetone         ND U         18         11         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethene         ND U         4.3         0.77         1         04/11/05         04/12/05         KWG0505901           Methyl Acetate         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Carbon Disulfide         ND U         4.3         1.7         1         04/11/05         04/12/05         KWG0505901           Diisopropyl Ether         ND U         8.6         0.37         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethane         ND U         4.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bromomethane                | ND U UJ  | 4.3 | 0.87 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichlorotrifluoroethane         ND         U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Acetone         ND         U         18         11         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethene         ND         U         4.3         0.77         1         04/11/05         04/12/05         KWG0505901           Methyl Acetate         ND         U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Carbon Disulfide         ND         U         4.3         1.7         1         04/11/05         04/12/05         KWG0505901           Diisopropyl Ether         ND         U         8.6         0.37         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND         U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND         U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND         U         4.3         0.79         1         04/11/05<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Chloroethane                | ND U     | 4.3 | 0.85 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Acetone ND U 18 11 1 04/11/05 04/12/05 KWG0505901 1,1-Dichloroethene ND U 4.3 0.77 1 04/11/05 04/12/05 KWG0505901    Methyl Acetate ND U 4.3 0.80 1 04/11/05 04/12/05 KWG0505901    Carbon Disulfide ND U 4.3 1.7 1 04/11/05 04/12/05 KWG0505901    Diisopropyl Ether ND U 8.6 0.37 1 04/11/05 04/12/05 KWG0505901    Methylene Chloride ND U 8.6 2.8 1 04/11/05 04/12/05 KWG0505901    Methylene Chloride ND U 4.3 0.71 1 04/11/05 04/12/05 KWG0505901    Methylene Chloride ND U 4.3 0.71 1 04/11/05 04/12/05 KWG0505901    Methylene Chloride ND U 4.3 0.71 1 04/11/05 04/12/05 KWG0505901    I,1-Dichloroethene ND U 4.3 0.79 1 04/11/05 04/12/05 KWG0505901    I,1-Dichloroethane ND U 4.3 0.85 1 04/11/05 04/12/05 KWG0505901    2-Butanone (MEK) ND U 18 13 1 04/11/05 04/12/05 KWG0505901    Cis-1,2-Dichloroethene ND U 4.3 0.90 1 04/11/05 04/12/05 KWG0505901    Chloroform ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901    Chloroform ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901    Cyclohexane ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.66 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.66 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.86 1 04/11/05 04/12/05 KWG0505901    Carbon Tetrachloride ND U 4.3 0.86 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                        | Trichlorofluoromethane      | ND U     | 4.3 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethene         ND U         4.3         0.77         1         04/11/05         04/12/05         KWG0505901           Methyl Acetate         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Carbon Disulfide         ND U         4.3         1.7         1         04/11/05         04/12/05         KWG0505901           Diisopropyl Ether         ND U         8.6         0.37         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           Cis-1,2-Dichloroethene         ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Trichlorotrifluoroethane    | ND U     | 4.3 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl Acetate         ND U         4.3         0.80         1         04/11/05         04/12/05         KWG0505901           Carbon Disulfide         ND U         4.3         1.7         1         04/11/05         04/12/05         KWG0505901           Diisopropyl Ether         ND U         8.6         0.37         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           Cis-1,2-Dichloroethene         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND U         <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Acetone                     | ND U     | 18  | 11   | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Carbon Disulfide         ND U         4.3         1.7         1         04/11/05         04/12/05         KWG0505901           Diisopropyl Ether         ND U         8.6         0.37         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND U         18         13         1         04/11/05         04/12/05         KWG0505901           cis-1,2-Dichloroethene         ND U         4.3         0.90         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           Cyclohexane         ND U         4.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1,1-Dichloroethene          | ND U     | 4.3 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Diisopropyl Ether         ND U         8.6         0.37         1         04/11/05         04/12/05         KWG0505901           Methylene Chloride         ND U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND U         18         13         1         04/11/05         04/12/05         KWG0505901           cis-1,2-Dichloroethene         ND U         4.3         0.90         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           1,1,1-Trichloroethane (TCA)         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG05005901           Carbon Tetrachloride         ND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Methyl Acetate              | ND U     | 4.3 | 0.80 | 1        | 04/11/05  | 04/12/05 |            |      |
| Methylene Chloride         ND U         8.6         2.8         1         04/11/05         04/12/05         KWG0505901           Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND U         18         13         1         04/11/05         04/12/05         KWG0505901           cis-1,2-Dichloroethene         ND U         4.3         0.90         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           1,1,1-Trichloroethane (TCA)         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           Cyclohexane         ND U         4.3         0.65         1         04/11/05         04/12/05         KWG0505901           Carbon Tetrachloride         ND U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Carbon Disulfide            | ND U     | 4.3 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether         ND U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND U         18         13         1         04/11/05         04/12/05         KWG0505901           cis-1,2-Dichloroethene         ND U         4.3         0.90         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           1,1,1-Trichloroethane (TCA)         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           Cyclohexane         ND U         4.3         0.73         1         04/11/05         04/12/05         KWG0505901           Carbon Tetrachloride         ND U         4.3         0.65         1         04/11/05         04/12/05         KWG0505901           Benzene         ND U <td< td=""><td>Diisopropyl Ether</td><td>ND U</td><td>8.6</td><td>0.37</td><td>1</td><td>04/11/05</td><td>04/12/05</td><td>KWG0505901</td><td></td></td<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Diisopropyl Ether           | ND U     | 8.6 | 0.37 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methyl tert-Butyl Ether         ND         U         4.3         0.71         1         04/11/05         04/12/05         KWG0505901           trans-1,2-Dichloroethene         ND         U         4.3         0.79         1         04/11/05         04/12/05         KWG0505901           1,1-Dichloroethane         ND         U         4.3         0.85         1         04/11/05         04/12/05         KWG0505901           2-Butanone (MEK)         ND         U         18         13         1         04/11/05         04/12/05         KWG0505901           cis-1,2-Dichloroethene         ND         U         4.3         0.90         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND         U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           1,1,1-Trichloroethane (TCA)         ND         U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           Cyclohexane         ND         U         4.3         0.65         1         04/11/05         04/12/05         KWG0505901           Carbon Tetrachloride         ND         U         4.3         0.73         1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Methylene Chloride          | ND U     | 8.6 | 2.8  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1-Dichloroethane 1,1-Dichloroethane 2-Butanone (MEK) ND U 18 13 1 04/11/05 04/12/05 KWG0505901 Cis-1,2-Dichloroethene ND U 4.3 0.90 1 04/11/05 04/12/05 KWG0505901  Chloroform ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901  1,1,1-Trichloroethane (TCA) ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901  Cyclohexane ND U 4.3 0.62 1 04/11/05 04/12/05 KWG0505901  Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901  Carbon Tetrachloride ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901  1,2-Dichloroethane (EDC) ND U 4.3 0.73 1 04/11/05 04/12/05 KWG0505901  1,2-Dichloroethane (EDC) ND U 4.3 0.73 1 04/11/05 04/12/05 KWG0505901  CWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             | ND U     | 4.3 | 0.71 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Butanone (MEK)  ND U  18  13  1  04/11/05  04/12/05  KWG0505901  cis-1,2-Dichloroethene  ND U  4.3  0.90  1  04/11/05  04/12/05  KWG0505901  Chloroform  ND U  4.3  0.62  1  04/11/05  04/12/05  KWG0505901  1,1,1-Trichloroethane (TCA)  ND U  4.3  0.62  1  04/11/05  04/12/05  KWG0505901  Cyclohexane  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.65  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.65  1  04/11/05  04/12/05  KWG0505901  1,2-Dichloroethane (EDC)  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Renzene  ND U  4.3  0.86  1  04/11/05  04/12/05  KWG0505901  KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | trans-1,2-Dichloroethene    | ND U     | 4.3 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cis-1,2-Dichloroethene         ND U         4.3         0.90         1         04/11/05         04/12/05         KWG0505901           Chloroform         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           1,1,1-Trichloroethane (TCA)         ND U         4.3         0.62         1         04/11/05         04/12/05         KWG0505901           Cyclohexane         ND U         4.3         0.73         1         04/11/05         04/12/05         KWG0505901           Carbon Tetrachloride         ND U         4.3         0.65         1         04/11/05         04/12/05         KWG0505901           1,2-Dichloroethane (EDC)         ND U         4.3         0.73         1         04/11/05         04/12/05         KWG0505901           Benzene         ND U         4.3         0.86         1         04/11/05         04/12/05         KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1,1-Dichloroethane          | ND U     |     |      | 1        | 04/11/05  |          |            |      |
| Chloroform  ND U  4.3  0.62  1  04/11/05  04/12/05  KWG0505901  1,1,1-Trichloroethane (TCA)  ND U  4.3  0.62  1  04/11/05  04/12/05  KWG0505901  Cyclohexane  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.65  1  04/11/05  04/12/05  KWG0505901  1,2-Dichloroethane (EDC)  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Renzene  ND U  4.3  0.86  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.73  1  04/11/05  04/12/05  KWG0505901  Carbon Tetrachloride  ND U  4.3  0.73  1  04/11/05  04/12/05  CWG0505901  Carbon Tetrachloride  ND U  4.3  0.73  1  04/11/05  04/12/05  CWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2-Butanone (MEK)            | ND U     | 18  | 13   | 1        | 04/11/05  | 04/12/05 |            |      |
| 1,1,1-Trichloroethane (TCA)       ND U       4.3       0.62       1       04/11/05       04/12/05       KWG0505901         Cyclohexane       ND U       4.3       0.73       1       04/11/05       04/12/05       KWG0505901         Carbon Tetrachloride       ND U       4.3       0.65       1       04/11/05       04/12/05       KWG0505901         1,2-Dichloroethane (EDC)       ND U       4.3       0.73       1       04/11/05       04/12/05       KWG0505901         Benzene       ND U       4.3       0.86       1       04/11/05       04/12/05       KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | cis-1,2-Dichloroethene      | ND U     | 4.3 | 0.90 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Cyclohexane         ND U U I         4.3         0.73         1         04/11/05         04/12/05         KWG0505901           Carbon Tetrachloride         ND U         4.3         0.65         1         04/11/05         04/12/05         KWG0505901           1,2-Dichloroethane (EDC)         ND U         4.3         0.73         1         04/11/05         04/12/05         KWG0505901           Benzene         ND U         4.3         0.86         1         04/11/05         04/12/05         KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Chloroform                  | ND U     | 4.3 | 0.62 | 1        | 04/11/05  |          | KWG0505901 |      |
| Carbon Tetrachloride         ND U         4.3         0.65         1         04/11/05         04/12/05         KWG0505901           1,2-Dichloroethane (EDC)         ND U         4.3         0.73         1         04/11/05         04/12/05         KWG0505901           Benzene         ND U         4.3         0.86         1         04/11/05         04/12/05         KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1,1,1-Trichloroethane (TCA) | ND U     | 4.3 | 0.62 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloroethane (EDC)     ND U     4.3     0.73     1     04/11/05     04/12/05     KWG0505901       Benzene     ND U     4.3     0.86     1     04/11/05     04/12/05     KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Cyclohexane                 | ND U UJ  | 4.3 | 0.73 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Benzene ND U 4.3 0.86 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Carbon Tetrachloride        | ND U     | 4.3 | 0.65 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1,2-Dichloroethane (EDC)    | ND U     | 4.3 | 0.73 | 1        | 04/11/05  | 04/12/05 |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Benzene                     | ND U     | 4.3 | 0.86 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Trichloroethene (TCE) ND U 4.3 0.31 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Trichloroethene (TCE)       | ND U     | 4.3 | 0.31 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichloropropane ND U 4.3 0.78 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1,2-Dichloropropane         | ND U     | 4.3 | 0.78 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromodichloromethane ND U 4.3 0.58 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bromodichloromethane        | ND U     | 4.3 | 0.58 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Methylcyclohexane ND U UJ 4.3 0.77 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Methylcyclohexane           | ND U UJ  | 4.3 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 2-Hexanone ND U 18 6.6 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             | ND U     | 18  | 6.6  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| cis-1,3-Dichloropropene ND U 4.3 0.83 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | cis-1,3-Dichloropropene     | ND U     | 4.3 | 0.83 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Toluene ND U 4.3 0.91 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Toluene                     |          |     |      | 1        | 04/11/05  |          |            |      |
| trans-1,3-Dichloropropene ND U 4.3 0.65 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | trans-1,3-Dichloropropene   | ND U     | 4.3 | 0.65 | 1        | 04/11/05  | 04/12/05 |            |      |
| 1,1,2-Trichloroethane ND U 4.3 0.75 1 04/11/05 04/12/05 KWG0505901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1,1,2-Trichloroethane       | ND U     | 4.3 | 0.75 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

Comments:

16/19/08

DD 477100

Analytical Results

Client: Project: Battelle Memorial Institute Novato Ballfields/G486063

Sample Matrix:

Soil

Service Request: K2502505

Date Collected: 04/06/2005 **Date Received:** 04/07/2005

### **Volatile Organic Compounds**

Sample Name:

TO63-R4-SB01-0-0.5

Lab Code:

K2502505-010

Extraction Method: EPA 5035

Units: ug/Kg Basis: Dry

Level: Low

| Extraction waterou. | 111111111111111111111111111111111111111 |
|---------------------|-----------------------------------------|
| Analysis Method:    | 8260B                                   |
|                     |                                         |

|                             |        |   |     |      | Dilution | Date      | Date     | Extraction |      |
|-----------------------------|--------|---|-----|------|----------|-----------|----------|------------|------|
| Analyte Name                | Result | Q | MRL | MDL  | Factor   | Extracted | Analyzed | Lot        | Note |
| 4-Methyl-2-pentanone (MIBK) | ND     | U | 18  | 6.0  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Tetrachloroethene (PCE)     | ND     | U | 4.3 | 0.34 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Dibromochloromethane        | ND     | U | 4.3 | 0.65 | .1       | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromoethane (EDB)     | ND     | U | 18  | 0.86 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Chlorobenzene               | ND     | U | 4.3 | 0.76 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Ethylbenzene                | ND     | U | 4.3 | 0.62 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| m,p-Xylenes                 | ND     | U | 4.3 | 1.7  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| o-Xylene                    | ND     | U | 4.3 | 0.75 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Styrene                     | ND     | U | 4.3 | 0.79 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromoform                   | ND     | U | 4.3 | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Isopropylbenzene            | ND     | U | 18  | 0.74 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,1,2,2-Tetrachloroethane   | ND     | U | 4.3 | 0.80 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,3-Dichlorobenzene         | ND     | U | 4.3 | 0.77 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,4-Dichlorobenzene         | ND     | U | 4.3 | 0.89 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dichlorobenzene         | ND     | U | 4.3 | 0.71 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2-Dibromo-3-chloropropane | ND     | U | 18  | 0.92 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,4-Trichlorobenzene      | ND     | U | 18  | 0.84 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Naphthalene                 | ND     | U | 18  | 0.97 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| Bromochloromethane          | ND     | U | 4.3 | 1.1  | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |
| 1,2,3-Trichlorobenzene      | ND     | U | 18  | 0.98 | 1        | 04/11/05  | 04/12/05 | KWG0505901 |      |

| Surrogate Name       | %Rec | Control<br>Limits | Date<br>Analyzed | Note       |  |
|----------------------|------|-------------------|------------------|------------|--|
| Dibromofluoromethane | 107  | 70-119            | 04/12/05         | Acceptable |  |
| Toluene-d8           | 110  | 72-121            | 04/12/05         | Acceptable |  |
| 4-Bromofluorobenzene | 112  | 66-122            | 04/12/05         | Acceptable |  |

LDC #: 13575C1

### **VALIDATION COMPLETENESS WORKSHEET**

SDG #: K2502505

Level III/IV

Laboratory: Columbia Analytical Services

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

Reviewer: C 2nd Reviewer:

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                                |               | Comments                                       |
|-------|------------------------------------------------|---------------|------------------------------------------------|
| 1.    | Technical holding times                        | 4             | Sampling dates: 4/4/05                         |
| 11.   | GC/MS Instrument performance check             | A             |                                                |
| III.  | Initial calibration                            | W             | 70 PSD = 30/15. SPCC9                          |
| IV.   | Continuing calibration                         | A             | 70 RSD = 30/15. SPCC 9<br>700 = 20. ICV = 25/0 |
| V.    | Blanks                                         | m             |                                                |
| VI.   | Surrogate spikes                               | AA            | chait Diffed                                   |
| VII.  | Matrix spike/Matrix spike duplicates           | AN            | and client spirition                           |
| VIII. | Laboratory control samples                     | 4             | LCS/D                                          |
| IX.   | Regional Quality Assurance and Quality Control | N             |                                                |
| X.    | Internal standards                             | A             |                                                |
| XI.   | Target compound identification                 | $\mathbf{A}$  | Not reviewed for Level III validation.         |
| XII.  | Compound quantitation/CRQLs                    | $\mathcal{F}$ | Not reviewed for Level III validation.         |
| XIII. | Tentatively identified compounds (TICs)        | N             | Not reviewed for Level III validation.         |
| XIV.  | System performance                             | F             | Not reviewed for Level III validation.         |
| XV.   | Overall assessment of data                     | A             |                                                |
| XVI.  | Field duplicates                               | N             |                                                |
| XVII. | Field blanks                                   | V             | :                                              |

Note:

A = Acceptable

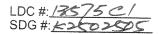
N = Not provided/applicable SW = See worksheet

ND = No compounds detected

R = Rinsate FB = Field blank D = Duplicate TB = Trip blank

EB = Equipment blank

Validated Samples: \*\* Indicates sample underwent Level IV validation TO63-R3-SB04-0-0.5 11 21 31 TO63-R3-SB04-2-3\*\* 12 22 32 TO63-R3-SB01-0-0.5 13 23 33 TO63-R3-SB01-4-5 14 24 34 5 TO63-R3-SB02-0-0.5 15 25 35 TO63-R3-SB03-0-0.5\*\* 16 26 36 TO63-R4-SB03-0-0.5 17 27 37 TO63-R4-SB03-3-4 18 28 38 9 TO63-R4-SB02-0-0.5 19 29 39 TO63-R4-SB01-0-0.5\*\* 20 30 40

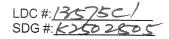


### VALIDATION FINDINGS CHECKLIST

Page: / of Reviewer: 2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260B)

| (= 1.10.1. 0.10 Method 0200B)                                                                                                                                                  |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Validation Area                                                                                                                                                                | Ye  | s I | 10 | NA | Findings/Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| I. Technical holding times                                                                                                                                                     |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| All technical holding times were met.                                                                                                                                          |     | 1   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Cooler temperature criteria was met.                                                                                                                                           |     | -   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| II. GC/MS Instrument performance check                                                                                                                                         |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were the BFB performance results reviewed and found to be within the specified criteria?                                                                                       |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were all samples analyzed within the 12 hour clock criteria?                                                                                                                   | /   | 1   |    |    | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| III. Initial calibration                                                                                                                                                       |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Did the laboratory perform a 5 point calibration prior to sample analysis?                                                                                                     |     | 1   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?                                        | 3   |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Was a curve fit used for evaluation?                                                                                                                                           |     |     | /  |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Did the initial calibration meet the curve fit acceptance criteria of > 0.990?                                                                                                 |     | /   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) $\geq$ 0.05?                                                               |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| IV. Continuing calibration                                                                                                                                                     |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?                                                                               |     |     |    |    | And the second s |
| Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?                                                           |     | Ī   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were all percent differences (%D) $\leq$ 25% and relative response factors (RRF) $\geq$ 0.05?                                                                                  |     |     | T  | 1  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| V. Blanks                                                                                                                                                                      | 1/_ | L   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Was a method blank associated with every sample in this SDG?                                                                                                                   | /   |     | Τ  | Т  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Was a method blank analyzed at least once every 12 hours for each matrix and concentration?                                                                                    |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.                                                                 |     | X   | Ŧ  | 1  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| VI. Surrogate spikes                                                                                                                                                           |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were all surrogate %R within QC limits?                                                                                                                                        |     |     |    | T  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| f the percent recovery (%R) for one or more surrogates was out of QC limits, was a eanalysis performed to confirm samples with %R outside of criteria?                         |     |     |    | 7  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| /II. Matrix spike/Matrix spike duplicates                                                                                                                                      |     |     | 1  |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each natrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water. |     |     |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Vas a MS/MSD analyzed every 20 samples of each matrix?                                                                                                                         |     | _   |    | T  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Vere the MS/MSD percent recoveries (%R) and the relative percent differences RPD) within the QC limits?                                                                        |     |     | _  | 1  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| III. Laboratory control samples                                                                                                                                                |     |     |    | 1  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| /as an LCS analyzed for this SDG?                                                                                                                                              | 7   |     |    | T  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                |     |     |    | 1  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



### VALIDATION FINDINGS CHECKLIST

Page: ≥of-Reviewer: 9 2nd Reviewer: ↓

|                                                                                                                                            | T              | <del></del>              |    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------|----|-------------------|
| Validation Area                                                                                                                            | Yes            | No                       | NA | Findings/Comments |
| Was an LCS analyzed per analytical batch?                                                                                                  |                | 1                        |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?                                           |                |                          |    |                   |
| IX. Regional Quality Assurance and Quality Control                                                                                         |                |                          |    |                   |
| Were performance evaluation (PE) samples performed?                                                                                        |                |                          |    |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?                                                                 |                |                          |    |                   |
| X. Internal standards                                                                                                                      |                |                          |    |                   |
| Were internal standard area counts within -50% or +100% of the associated calibration standard?                                            |                |                          |    |                   |
| Were retention times within <u>+</u> 30 seconds of the associated calibration standard?                                                    |                |                          |    |                   |
| XI. Target compound identification                                                                                                         |                |                          |    |                   |
| Were relative retention times (RRT's) within $\pm$ 0.06 RRT units of the standard?                                                         | /              |                          |    |                   |
| Did compound spectra meet specified EPA "Functional Guidelines" criteria?                                                                  | /              |                          |    |                   |
| Were chromatogram peaks verified and accounted for?                                                                                        |                |                          |    |                   |
| XII. Compound quantitation/CRQLs                                                                                                           |                |                          |    |                   |
| Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?              |                |                          |    |                   |
| Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?    |                |                          |    |                   |
| XIII. Tentatively identified compounds (TICs)                                                                                              |                |                          |    |                   |
| Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?                              |                |                          |    |                   |
| Were relative intensities of the major ions within $\pm$ 20% between the sample and the reference spectra?                                 |                |                          | 1  |                   |
| Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)? |                |                          |    |                   |
| KIV, System performance                                                                                                                    |                |                          |    |                   |
| System performance was found to be acceptable.                                                                                             |                |                          |    |                   |
| (V, Overall assessment of data                                                                                                             |                | ,                        |    |                   |
| Overall assessment of data was found to be acceptable.                                                                                     | $\overline{A}$ |                          | Т  |                   |
| (VI. Field duplicates                                                                                                                      |                |                          |    |                   |
| field duplicate pairs were identified in this SDG.                                                                                         |                | $\overline{}$            |    |                   |
| arget compounds were detected in the field duplicates.                                                                                     |                |                          | 7  |                   |
| VII. Field blanks                                                                                                                          |                |                          |    |                   |
| ield blanks were identified in this SDG.                                                                                                   | T              | $\overline{\mathcal{A}}$ | Т  |                   |
| arget compounds were detected in the field blanks.                                                                                         | +              | 4                        | 4  |                   |
| arget compounds were detected in the field blanks.                                                                                         |                |                          |    |                   |

## TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

| A. Chloromethane*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | U. 1,1,2-Trichloroethane        | O0. 2,2-Dichloropropane                | III. n-Butvlbenzene                        |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------|--------------------------------------------|-------------------------|
| B. Bromomethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | V. Benzene                      | PP. Bromochloromethane                 | 111 12-Dichlorova                          |                         |
| C. Vinyl choride**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | W. trans-1,3-Dichloropropene    | OO 11-Dichloromoono                    |                                            | UUUU. Isopropyl acohol  |
| D Chloroethana                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 | ייי בייי בייי בייי בייי בייי בייי בייי | KKK. 1,2,4-1 richlorobenzene               | EEEE. Acetonitrile      |
| C. Chologinalia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A. Bromoiorm*                   | RR. Dibromomethane                     | LLL. Hexachlorobutadiene                   | FFFF. Acrolein          |
| E. Methylene chloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Y. 4-Methyl-2-pentancne         | SS. 1,3-Dichloropropane                | MMM. Naphthalene                           | GGGG Applonitells       |
| F. Acetone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Z. 2-Hexanone                   | TT. 1,2-Dibromoethane                  | NNN 1.2.3-Trichlombenzene                  |                         |
| G. Carbon disulfide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AA. Tetrachloroethene           | UU. 1,1,2-Tetrachloroethane            | OOO 13 F. Trichlochard                     | nnnn. 1,4-Dioxane       |
| H. 1,1-Dichloroethene**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | BR 1199-Totrochlomothers*       |                                        | OCC. 1,5,0-1 reflected                     | III. Isobutyl alcohol   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DO: 1,1,2,2-1 du aci notoeniane | VV. Isopropylbenzene                   | PPP trans-1,2-Dichloroethene               | JJJJ. Methacrylonitrile |
| L., I-Dichloroethane*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CC. Toluene**                   | WW. Bromobenzene                       | QQQ. cis-1,2-Dichloroethene                | KKKK Propionitrile      |
| J. 1,2-Dichloroethene, total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DD. Chlorobenzene*              | XX 1,2,3-Trichloropropane              | RRR m.p-Xvlenes                            |                         |
| K. Chloroform**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EE. Ethylbenzene**              | YY n-Propylbenzene                     |                                            | LLLL.                   |
| 1 2.Dichlomothana                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | , C LL                          |                                        | ooo o-ykene                                | MMMM.                   |
| r. 1,2-Donoton                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FF. Styrene                     | ZZ. 2-Chlorotoluene                    | TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane | NNN                     |
| M. 2-Butanone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GG. Xylenes, total              | AAA. 1,3,5-Trimethylbenzene            | UUU. 1,2-Dichlorotetrafluoroethane         | 0000                    |
| N. 1,1,1-Trichloroethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HH. Vinyl acetate               | BBB. 4-Chlorotoluene                   | VVV. 4-Ethyltoluene                        | dddd                    |
| O. Carbon tetrachloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | II. 2-Chloroethylvinyl eiher    | CCC. tert-Butylbenzene                 | WWW. Ethanol                               |                         |
| P. Bromodichloromethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | JJ. Dichlorodifluorome:hane     | DDD. 1,2,4-Trimethylbenzene            | XXX Disconnot ether                        | ממסמי.                  |
| Q. 1,2-Dichloropropane**                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | KK. Trichlorofluoromethane      | EEE. sec-Butylbenzene                  | VVV tot Button                             | KKKK.                   |
| R. cis-1,3-Dichloropropene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mothy tot but of other          | i i                                    | ייימורטעומוטו                              | 5555.                   |
| C Trible and the control of the cont | ברי ואסמוארמו בסמאו פנופו       | FFF. 1,3-Dichlorobenzene               | ZZZ. tert-Butyl alcohol                    | TTTT.                   |
| S. Frichioroemene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MM. 1,2-Eibromo-3-chloropropane | GGG. p-Isopropyltoluene                | AAAA. Ethyl tert-butyl ether               | UUUU.                   |
| T. Dibromochloromethane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NN. Methyl ethyl ketone         | HHH. 1,4-Dichlorobenzene               | BBBB. tert-Amyl methyl ether               | WWV.                    |

<sup>\* =</sup> System performance check compounds (SPCC) for RRF; \*\* = Calibration check compounds (CCC) for %RSD.

SDC #: (25c) # 50S LDC #: 135/5@

### VALIDATION FINDINGS WORKSHEET Initial Calibration

of Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". N N/A

Did the laboratory perform a 5 point calibration prior to sample analysis?

Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Did the initial calibration meet the acceptance criteria?

Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF? Y (N N/A

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| Associated Samples              |               | MITBA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| Finding %RSD<br>(Limit: <30.0%) | 14-11-11      |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| Compound                        | Œ             |       | Belohexand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| Standard ID                     | 1841          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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505705 LDC #: 185/180 SDG #: 1

### VALIDATION FINDINGS WORKSHEET Blanks

ot .4. Page: Reviewer: 2nd Reviewer:

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Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". N = NA = NA

MN N/A

Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Was there contamination in the method blanks? If yes, please see the qualifications below. Y N N/A

Blank analysis date: 4 Conc. units: /

Associated Samples:

|                    |                |        |      |   |                       |       |  | Not obtained and an artist of the second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Compound           | Blank ID       |        |      | S | Sample Identification | ation |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ≽/n/≠              | F-10/2029=1017 | ٨      | ĸ    |   |                       |       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Methylene chloride |                |        |      |   |                       |       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    |                |        |      |   |                       |       |  | And the state of t |
| CROL               |                |        |      |   |                       |       |  | Common Colorador III III III III II II II II II II II I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                    |                |        |      |   |                       |       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Blank analysis date: \_ Conc. units:

Associated Samples:

| Compound           | Blank ID | Sample Identification |
|--------------------|----------|-----------------------|
|                    |          |                       |
| Methylene chloride |          |                       |
| Acetone            |          |                       |
|                    |          |                       |
|                    |          |                       |
|                    |          |                       |
|                    |          |                       |
| CROL               |          |                       |

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were also qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 13575C1 SDG #: k2502525

## VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: of/ Reviewer: S

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the

 $RR^{\Gamma}=(A_{\nu})(C_{k})/(A_{k})(C_{\nu})$  average RRF = sum of the RRFs/number of standards %RSD = 100 \* (S/X)

 $A_{\rm k}=$  Area of associated internal standard ompound,  $C_{\rm k}=$  Concertration of internal standard

 $A_x = Area of compound,$   $C_x = Concentration of compound,$  S = Standard deviation of the RRFs X = Mean of the RRFs

|   |                                                                                                                                                                                                                               |                     |                                            | Reported          | Recalculated     | Reported    | Recalculated | Reported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bocelenated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|-------------------|------------------|-------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * | Standard ID                                                                                                                                                                                                                   | Calibration<br>Date | Compound (Reference Internal Standard)     | RRF<br>( \$2 std) | RRF<br>(452) std | Average RRF | Average RRF  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   | \ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \                                                                                                                                                                                       | 1 1 "               | M Attended                                 |                   |                  | (minal)     | (miliai)     | %HSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | %RSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|   |                                                                                                                                                                                                                               | 4/11/05             | Memylene chloride (1st internal standard)  | 0.310             | 0.312            | 0.327       | 0.327        | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 124                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|   |                                                                                                                                                                                                                               |                     | Triehlerethene (2nd internal standard)     | 0.489             | 687.0            | 0.45/       | 0.45/        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|   |                                                                                                                                                                                                                               |                     | Johnson (3rd internal standard)            | 10.0              | 100              | 1.95        | 1.96         | 1:0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2 |                                                                                                                                                                                                                               |                     | Methylene chloride (1st internal standard) |                   |                  |             |              | 1://                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | / /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|   |                                                                                                                                                                                                                               |                     | Trichlorethene (2nd internal standard)     |                   |                  |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | **************************************                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|   |                                                                                                                                                                                                                               |                     | Toluene (3rd internal standard)            |                   |                  |             |              | THE RESIDENCE OF THE PROPERTY | THE RESIDENCE AND A STATE OF THE PROPERTY OF T |
| 8 |                                                                                                                                                                                                                               |                     | Methylene chloride (1st internal standard) |                   |                  |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                                                                                                                               |                     | Trichlorethene (2nd internal standard)     |                   |                  |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ANNONCHANGES OF THE SECOND SEC |
|   | PROPERTY OF THE PROPERTY OF T |                     | Toluene (3rd internal standard)            |                   |                  |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | AND THE PERSONS AND THE PERSON |
| 4 |                                                                                                                                                                                                                               |                     | Methylene chloride (1st internal standard) |                   |                  |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Annual representation of the state of the st |
|   | -                                                                                                                                                                                                                             |                     | Trichlorethene (2nd internal standard)     |                   |                  |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the

Toluene (3rd internal standard)

LDC #:13575c / SDG #: k25702505

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

METHOD: GC/MS VCA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Felative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 \* (ave. RRF - RRF)/ave. RRF RRF =  $(A_{\nu})(C_{\nu})/(A_{\nu})(C_{\nu})$ 

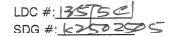
Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF

 $A_x = Area of compound,$   $A_y = C_x = Concentration of compound, <math>C_b = C_b = C_y = C_y$ 

 $A_{\mathbf{k}} = Area \ of \ associated internal standard und, <math>C_{\mathbf{k}} = Concentration \ of internal \ standard$ 

|   |                                                                                                                |                     |                                            |                          | Reported    | Recalculated | Reported | Recalculated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---|----------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|--------------------------|-------------|--------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * | Standard ID                                                                                                    | Calibration<br>Date | Compound (Reference internal Standard)     | Average RRF<br>(initial) | RRF<br>(CC) | RRF<br>(CC)  | %D       | ۵%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| - | 0411F022                                                                                                       | 4/11/10             | Methylene chloride (1st internal standard) | 0.327                    | 0.291       | 165.0        |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                | 50/11/4             | Frishiorethene (2nd internal standard)     | 0.45/                    | 0.487       | (87.0        | 80       | b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|   |                                                                                                                |                     | Lough (3rd internal standard)              | 1.95                     | 2.03        | 0.03         | 4        | afrika.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2 |                                                                                                                |                     | Methylene chloride (1st internal standard) |                          |             |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                |                     | Trichlorethene (2nd internal standard)     |                          |             |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                |                     | Toluene (3rd internal standard)            |                          |             |              |          | ANALYSIS ANALYSI ANALYSI ANALYSI ANALYSI ANALYSI ANALYSI ANALYSI ANALYSI ANALYSI ANA |
| က |                                                                                                                |                     | Methylene chloride (1st internal standard) |                          |             |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                |                     | Trichlorethene (2nd internal standard)     |                          |             |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                |                     | Toluene (3rd internal standard)            |                          |             |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4 |                                                                                                                |                     | Methylene chloride (1st internal standard) |                          |             |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   | жимировной обращарнация че образования обоснования образования образования образования образования образования |                     | Trichlorethene (2nd internal standard)     |                          |             |              | - ,      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   |                                                                                                                |                     | Toluene (3rd internal standard)            |                          |             |              |          | Managabby state shoots do soon of a la diploded delimination segments on proposessions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



### VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

| Page:_        |          |
|---------------|----------|
| Reviewer:     | <u> </u> |
| 2nd reviewer: |          |
|               | Y        |

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

% Recovery: SF/SS \* 100 Where: SF = Surrogate Found SS = Surrogate Spiked

| C- |   | 1 | _ | ID: |
|----|---|---|---|-----|
| Sa | m | D | е | 10: |

|                       | Surrogate<br>Spiked | Surrogate<br>Found | Percent<br>Recovery<br>Reported | Percent<br>Recovery<br>Recalculated | Percent<br>Difference |
|-----------------------|---------------------|--------------------|---------------------------------|-------------------------------------|-----------------------|
| Toluene-d8            | 50                  | 53.84              | 108                             | 108                                 | U                     |
| Bromofluorobenzene    | Ý                   | 54.78              | 110                             | 110                                 | ,                     |
| 1,2-Dichloroethane-d4 |                     |                    |                                 |                                     |                       |
| Dibromofluoromethane  | 50                  | 54.01              | (08                             | 108                                 | 1                     |

### Sample ID:

|                       | Surrogate<br>Spiked | Surrogate<br>Found | Percent<br>Recovery<br>Reported | Percent<br>Recovery<br>Recalculated | Percent<br>Difference |
|-----------------------|---------------------|--------------------|---------------------------------|-------------------------------------|-----------------------|
| Toluene-d8            |                     |                    |                                 |                                     |                       |
| Bromofluorobenzene    |                     |                    |                                 |                                     |                       |
| 1,2-Dichloroethane-d4 |                     |                    |                                 |                                     |                       |
| Dibromofluoromethane  |                     |                    |                                 |                                     |                       |

### Sample ID:\_\_\_\_\_

|                       | Surrogate<br>Spiked | Surrogate<br>Found | Percent<br>Recovery<br>Reported | Percent<br>Recovery<br>Recalculated | Percent<br>Difference |
|-----------------------|---------------------|--------------------|---------------------------------|-------------------------------------|-----------------------|
| Toluene-d8            |                     |                    |                                 |                                     |                       |
| Bromofluorobenzene    |                     |                    |                                 |                                     |                       |
| 1,2-Dichloroethane-d4 |                     |                    |                                 |                                     |                       |
| Dibromofluoromethane  |                     |                    |                                 | ,                                   |                       |

### Sample ID:\_\_

|                       | Surrogate<br>Spiked | Surrogate<br>Found | Percent<br>Recovery<br>Reported | Percent<br>Recovery<br>Recalculated | Percent<br>Difference |
|-----------------------|---------------------|--------------------|---------------------------------|-------------------------------------|-----------------------|
| Toluene-d8            |                     |                    |                                 |                                     |                       |
| Bromofluorobenzene    |                     |                    |                                 |                                     |                       |
| 1,2-Dichloroethane-d4 |                     |                    |                                 |                                     |                       |
| Dibromofluoromethane  |                     |                    |                                 |                                     |                       |

### Sample ID:\_

|                       | Surrogate<br>Spiked | Surrogate<br>Found | Percent<br>Recovery<br>Reported | Percent<br>Recovery<br>Recalculated | Percent<br>Difference |
|-----------------------|---------------------|--------------------|---------------------------------|-------------------------------------|-----------------------|
| Toluene-d8            |                     |                    |                                 |                                     |                       |
| Bromofluorobenzene    |                     |                    |                                 |                                     |                       |
| 1,2-Dichloroethane-d4 |                     |                    |                                 |                                     |                       |
| Dibromofluoromethane  |                     |                    |                                 |                                     | Oraș                  |

SDG #: K2502255 LDC #: 1357301

## Laboratory Control Sample Results Verification VALIDATION FINDINGS WORKSHEET

2nd Reviewer: Page:\_ Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Fecovery = 100 \* SSC/SA

Where: SSC = Spiked sample concentration SA = Spike added

LCS = Laboraotry control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

No. 1 LCS ID: KW 40505901-1

RPD = I LCS - LCSD I \* 2/(LCS + LCSD)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S S    | oike       | Spiked Sample | Sample         | SOT              | s        | rcsp             | Q       | rcs/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| Compound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AC )   | Addred (S) | Concentration | fration<br>'2) | Percent Recovery | lecovery | Percent Recovery | ecovery | #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RPD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SOT    | CSD        | CCS           | CSD            | Reported         | Recalc.  | Reported         | Bacalo  | Donortod                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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                                                                                                                                                                                                                                                               |
| 1,1-Dichloroethene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25     | 24         | 46.7          | 46.5           | 93               | 93       | 2<br>V           | 92      | haniodan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0%

LDC #: /3575C/ SDG #: /2502505

%S

### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Example:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

 $(A_x)(I_s)(DF)$ Concentration =  $\overline{(A_{is})(RRF)(V_o)(\%S)}$ Area of the characteristic ion (EICP) for the compound to be measured Area of the characteristic ion (EICP) for the specific internal standard Amount of internal standard added in nanograms = Relative response factor of the calibration standard. RRF Volume or weight of sample pruged in milliliters (ml)  $V_{\circ}$ or grams (g). Dilution factor. Df

Percent solids, applicable to soils and solid matrices

Conc. = (179070) (50) (5) (6338785+ 0.0779(3.43)(0.5-9)
=44.8 M8/15

| #        | Sample ID | Compound | Reported<br>Concentration<br>( ) | Calculated<br>Concentration<br>( ) | Qualification |
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